

BOROUGH OF SCARBOROUGH.

ANNUAL REPORT

ON THE

HEALTH, SANITARY CONDITION, &c.,

OF

SCARBOROUGH,

For the Year 1909,

BY

JOHN KNIGHT, M.D., D.P.H., CAMB.


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*Medical Superintendent of the Corporation Sanatorium and
Small Pox Hospital.*

SCARBOROUGH:

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HEALTH DEPARTMENT,

King Street, Scarborough.

To the Town Council of the Borough of Scarborough.

Gentlemen,

I have the honour to submit to you my Fifth Annual Report, which is also the Thirty-Eighth Annual Report of the Medical Officer of Health for the Borough.

I gratefully acknowledge the courtesy you have invariably shown me, and beg to tender my colleagues my heartiest thanks for the valuable help they have so willingly given.

Mr. Bastiman and the Office Staff, the Health Visitor and School Nurse, the Matron and Nursing Staff of the Sanatorium have all contributed to render the work of the Health Department efficient.

By the appointment of Dr. Tatham as Assistant Medical Officer of Health, Dr. Wilkinson's connection with the Corporation as Deputy Medical Officer terminates. I gladly embrace this opportunity of acknowledging the efficient manner in which he has performed his duties, and the ungrudging spirit in which he has offered me valuable help on numerous occasions.

I have the honour to be, Gentlemen,

Your obedient Servant,

JOHN KNIGHT.

BOROUGH OF SCARBOROUGH.

STATISTICAL MEMORANDA FOR 1909.

Area (inclusive of area covered by water)	...	2562 acres.
Resident Population at Census, 1901	... ..	38,161
Resident Population 1909	... ..	41,480
Birth-rate ... ..	...	18·8
Resident Death-rate ... ..	...	12·6
CORRECTED RESIDENT DEATH-RATE	... ..	12·0
Comparative Mortality (England and Wales, 1,000)	...	827
Zymotic Death-rate ... ..	...	·45
Infantile Death-rate (per 1,000 Births)	... ..	71·5
Persons per Inhabited Houses (Census, 1901)	... ..	4·4
Census Population, 1861	... ..	18,337
„ 1871	... ..	24,259
„ 1881	... ..	30,504
„ 1891	... ..	33,776
„ 1901	... ..	38,161

BOROUGH OF



SCARBOROUGH.

ANNUAL REPORT.

VITAL STATISTICS.

POPULATION.

To estimate the population with any reasonable degree of accuracy is a task which becomes increasingly difficult as the interval from the last census lengthens. The method universally employed assumes that the annual rate of increase during the last inter-censal period is maintained, and when applied to very large numbers, such as the population of the whole country, this method yields fairly accurate results. But it is quite otherwise when the population of a small district is being considered. The only remedy for this unsatisfactory state of affairs is a more frequent census, *e.g.*, five-yearly instead of ten-yearly.

Some idea of the growth of population may be obtained from a consideration of the excess of births over deaths, and the number of new dwelling-houses annually certified by the Surveyor, but such a general impression is much too vague to be expressed in numerical terms.

In the absence of any other criterion, the estimates of the Registrar-General have been practically adopted in these Reports from 1901 to 1907 inclusive. Since this latter date, the Chief Collector of Rates has, at the cost of considerable labour, supplied the Medical Officer of Health with a return of the number of occupied houses in the Borough, and this return has enabled the estimates of population for 1908 and 1909 to be checked. It is apparent that the rate of increase assumed by the Registrar-General has not been maintained, and the estimates for these years have therefore been reduced. It must be remembered that the estimate for any year is only provisional, and is subject to revision after the figures of the next census are available. Having regard to this revision, and also to the fact that the estimate based on inhabited houses is itself only approximate, the figures published from 1901 to 1907 inclusive have been left unaltered.

The estimated population for 1909 is 41,480, a figure which is probably slightly in excess of the actual number, but which is certainly much nearer the truth than the Registrar-General's estimate of 42,156.

The following Table gives the number of new dwelling-houses certified by the Borough Engineer, from the Census to the middle of 1909.

Period.	Wards.						Town.
	N.W.	N.	C.	E.	W.	S.	
April 1st, 1901—Dec. 31st, 1901	18	16	1	6	16	27	84
Jan. 1st—Dec. 31st, 1902	31	45	...	4	26	25	131
Jan. 1st—Dec. 31st, 1903	8	48	...	...	29	22	107
Jan. 1st—June 30th, 1904.....	4	35	1	...	20	15	75
July 1st, 1904—June 30th, 1905.....	11	104	...	...	9	20	144
July 1st, 1905—June 30th, 1906.....	4	67	4	3	43	12	133
July 1st, 1906—June 30th, 1907.....	...	52	2	2	17	20	93
July 1st, 1907—June 30th, 1908.....	1	11	...	...	13	13	38
July 1st, 1908...June 30th, 1909.....	14	24	...	...	13	6	57
Total since Census.....	91	402	8	15	186	160	862

The reduction in the number of new houses in recent years is apparent, although 1909 shews a slight improvement in this respect on the previous year.

Growth has chiefly occurred in the North, West, and South Wards, while the Central and East Wards have been practically stationary.

BIRTHS.

During the year there were 783 births registered in the Borough, compared with 731, 772, and 774 in 1908, 1907, and 1906 respectively.

For the first time since 1904 the annual number of births shows an increase on that of the preceding year. Despite this small increase, it has to be noted that the annual number of births has of recent years been very much lower than formerly. During the whole period 1876-1905, the average annual number was 915, while the maximum of 1,006 was attained as far back as 1880. Since 1905 the annual number has been less than 800, and the number in 1909 is the lowest since 1871, when the census population was 24,259, compared with 41,480 in the year now under review.

The birth-rate for the year is 18·8 compared with 17·7 in 1908.

The following Table shows the course of the local birth-rate, and that of the whole country, for consecutive 5-year periods since 1875, and for the last 4 years.

AVERAGE BIRTH-RATES IN SUCCESSIVE QUINQUENNIA.

		Scarborough.		England and Wales.	
1876-1880	..	31.8	per 1000.	..	35.3 per 1000.
1881-1885	..	30.3	„ „	..	33.3 „ „
1886-1890	..	27.4	„ „	..	31.4 „ „
1891-1895	..	25.5	„ „	..	30.4 „ „
1896-1900	..	26.0	„ „	..	29.2 „ „
1901-1905	..	22.4	„ „	..	28.1 „ „
1906	..	19.0	„ „	..	27.1 „ „
1907	..	18.7	„ „	..	26.3 „ „
1908	..	17.7	„ „	..	26.5 „ „
1909	..	18.8	„ „	..	25.6 „ „

The lowness of the local birth-rate as compared with that of the whole country, and the various factors which contribute to the decline shown by both, have been fully discussed in previous Reports.

ILLEGITIMATE BIRTHS.—Of the 783 births, 84 were illegitimate, compared with 731 and 51 respectively in 1908. The proportion of illegitimate per 1000 total births has thus risen from 70 to 107. The potential influence of this altered ratio on the Infantile Mortality will be considered later.

ILLEGITIMATE BIRTHS PER 1000 BIRTHS.

		Scarborough.		England and Wales.	
1876-1905	84	..	44
1906	79	..	40
1907	92 (91.9)	..	39.4
1908	70 (69.7)	..	39.9
1909	107 (107.2)	..	—

As has previously been indicated the high ratio of illegitimate births, is very largely due to the excessive proportion of single women at conceptive ages.

The prolonged and marked decline of the birth rate has two results: (1.) Unless balanced by the combined effect of a declining death-rate and of immigration the rate of increase of the population is checked. (2.) A less obvious, but none the less important^t effect, is the alteration which it produces in the age-constitution of the population, and through this, in the death-rate. Should a decline in the birth-rate continue for a few years, the proportion of children under 5 years, among whom the death-rate is very much higher than that of the whole population, is diminished, and in this way the general death-rate is lowered. If the decline persist over a long series of years, the average age of the population is raised, and from this cause alone the general death-rate is increased.

Now the decline in the local birth-rate has been long continued and has been much more serious than that exhibited by the birth-rate of the whole country. It is therefore especially gratifying to note that the death-rate, nay the actual number of deaths, has been much lower than formerly.

BIRTHS.

Month.	Males.	Females.	Total.	Illegitimate.		
				Males.	Females.	Total.
January	32	42	74	5	3	8
February	19	42	61	4	2	6
March	36	27	63	4	4	8
April	36	50	86	2	6	8
May... ..	30	30	60	4	4	8
June	27	40	67	3	7	10
July	43	37	80	6	4	10
August	31	28	59	2	1	3
September	30	29	59	5	5	10
October	33	32	65	1	2	3
November	30	28	58	6	1	7
December	27	24	51	1	2	3
Total	374	409	783	43	41	84

WARD DISTRIBUTION OF TOTAL BIRTHS.

Year.	Town.	N.W.	N.	C.	E.	W.	S.
1909	783	220	139	93	160	138	33
1908	731	192	140	89	148	130	32
Difference	+ 52	+ 28	— 1	+ 4	+ 12	+ 8	× 1

WARD DISTRIBUTION OF ILLEGITIMATE BIRTHS.

Year.	Town.	N.W.	N.	C.	E.	W.	S.
1909	84	23	10	9	20	21	1
1908	51	16	3	10	12	9	1
Difference	+ 33	+ 7	× 7	— 1	+ 8	+ 12	...

CLASSIFICATION OF BIRTHS, 1876—1909.

Period.	Total Births.			Illegitimate Births.		
	Males.	Females.	Total.	Males.	Females.	Total.
1876-1880	2274	2296	4570	190	190	380
1881-1885	2429	2308	4737	201	169	370
1886-1890	2222	2281	4503	181	202	383
1891-1895	2235	2206	4441	190	195	385
1896-1900	2435	2364	4799	232	183	415
1901-1905	2231	1172	4403	179	187	366
Annual Average						
1876-1905	461	454	915	39	37	76
1906	422	352	774	29	32	61
1907	411	361	772	40	31	72
1908	373	358	731	28	23	51
1909	374	409	783	43	41	84

MONTHLY REGISTRATION OF BIRTHS, 1876—1909.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1876-1880	377	316	380	403	438	392	353	357	381	397	405	371
1881-1885	418	380	397	396	403	391	390	399	393	415	370	386
1886-1890	389	328	334	353	386	395	434	370	373	406	361	374
1891-1895	380	369	331	360	406	401	413	375	345	381	367	312
1896-1900	459	342	401	388	426	415	458	404	375	375	375	381
1901-1905	369	330	357	354	395	389	372	391	357	395	366	337
Annual Average												
1876-1905	79	69	73	75	82	79	81	77	74	79	75	72
1906	62	63	72	69	84	48	73	72	65	70	54	42
1907	77	55	57	73	72	66	88	60	57	60	68	39
1908	56	57	80	57	61	74	53	60	74	69	46	44
1909	74	61	63	86	60	67	80	59	59	65	58	51

WARD DISTRIBUTION OF BIRTHS, 1876-1909.

Period.	Total Births.							Illegitimate Births.						
	N.W.	N.	C.	E.	W.	S.	Total.	N.W.	N.	C.	E.	W.	S.	Total.
1876-1880	962	905	977	1260	411	155	4570	123	83	74	72	24	4	380
1881-1885	1057	744	863	1240	679	155	4738	128	57	61	80	40	4	370
1886-1899	1091	660	697	1132	758	165	4503	111	62	59	86	52	13	383
1891-1895	1203	604	640	1010	795	188	4440	146	61	59	63	44	12	385
1896-1900	1423	637	643	1052	844	200	4799	135	75	58	79	63	5	415
1901-1905	1282	645	567	902	824	183	4403	130	58	51	64	59	4	366
Annual Average														
1876-1905	234	136	146	220	144	35	915	26	13	12	15	9	1	76
1906	204	126	110	160	147	27	774	19	12	7	12	8	3	61
1907	209	155	98	151	136	23	772	30	10	7	14	9	1	71
1908	192	140	89	148	130	32	731	16	3	10	12	9	1	51
1909	220	139	93	160	138	33	783	23	10	9	20	21	1	84

MARRIAGES.

There were 315 marriages registered in the Borough during the year, compared with 312 in 1908. The marriage-rate, or proportion of persons married per 1000 of the population is 15.0.

The following Table shows the number of marriages, and the marriage-rate during the last ten years.

Year	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Marriages	348	312	371	344	363	314	316	321	312	315
Rate	18.4	16.2	19.0	17.4	18.2	15.6	15.5	15.5	15.1	15.0

DEATHS.

During the year there were 549 deaths registered compared with 536 in 1908. The number recorded in 1908 was actually the lowest since 1876, and that for 1909 is the lowest since 1881. When it is borne in mind that the estimated population in 1876 was 27,360, and in 1881, 30,582, compared with 41,250, and 41,480 in 1908 and 1909 respectively, the mortality in recent years must be considered highly satisfactory.

For the purposes of the Local Government Board Tables, the visitors' deaths (18) in public institutions in the Borough are deducted, and to the remainder are added the deaths of residents in public institutions outside the Borough (4 in the Sanatorium, and 1 in another district.)

The deaths of residents are found to be 536, compared with 534 in 1908, and 703 in 1907, and the death-rate (uncorrected) is 12.9, the same as last year. In computing the death-rate of the ordinary industrial town, this method of "correcting for institutions" is fairly satisfactory, as the non-residents form only a very small fraction of such a population.

In health resorts, such as Scarborough, the non-residents, during a portion of the year at least, may nearly equal the residents, and they reside for the most part in private houses. The estimated resident population, moreover, is based on the census, which is taken at a time of the year when, not only are visitors practically absent, but not a few of the residents are away on holiday. Hence, in estimating the local resident death-rate, all visitors' deaths are excluded, and not only those which occurred in public institutions.

The total residents' deaths are therefore 523 compared with 502 in 1908, and 681 in 1907, and the crude death-rate is 12.6 per 1,000.

Multiplying this by the Registrar General's "factor for correction," the corrected resident death-rate is 12.0, or only .4 per 1000 above the rate for 1908, which was by far the lowest on record.

The following table compares the resident mortality during the year, with that of 1908.

AGE-INCIDENCE ~~OR~~ RESIDENTS' DEATHS.

Quarter.	All Ages.		Under 1 year.		1 to 5 years.		5 to 15 years.		15 to 25 years.		25 to 65 years.		Over 65 years.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First ...	55	79	5	4	2	4	5	2	3	1	16	25	24	43
Second ..	83	64	7	8	1	3	2	..	2	5	26	18	45	30
Third	52	67	7	6	3	2	1	1	2	3	16	21	23	34
Fourth ..	54	69	9	10	2	3	..	2	2	2	19	23	22	29
1909	523		56		20		13		20		164		250	
1908	502		65		37		16		14		176		194	
Difference	+ 21		- 9		- 17		- 3		+ 6		- 13		+ 57	

WARD DISTRIBUTION OF DEATHS.

Following the method adopted in the report for 1905, the influence of a Public Institution on the Mortality of the Ward in which it is situated, has been eliminated by referring each resident's death in an Institution, to the Ward in which the deceased previously resided.

RESIDENTS' DEATHS IN WARDS.

Age Period.	Town.	N.W.	N.	C.	E.	W.	S.
Under 1 year	56	17	7	7	14	9	2
1 to 5 years	20	6	3	3	4	3	1
5 to 15 years	13	4	.	1	1	5	2
15 to 25 years	20	8	2	1	2	7	..
25 to 65 years	164	36	35	24	26	25	18
Over 65 years	250	58	51	28	35	49	29
1909	523	129	98	64	82	98	52
1908	502	107	109	75	76	80	55
Difference	+ 21	+ 22	— 11	— 11	+ 6	+ 18	— 3

RESIDENTS' DEATHS IN INSTITUTIONS.

During the year, 50 residents died in the Workhouse and its Infirmary, 32 in the General Hospital, and 4 in the Sanatorium; 86 in all, compared with 62 in 1908, and 96 in 1907.

INQUESTS.

Inquests were held regarding 38 deaths, compared with 40 in 1908.

The ages at death, and causes of death, were as follows :—

Age at Death.					Cause of Death.		
					Total.	Visitors.	
Under 1 year	2						
1 to 5 years	4	Accident	13	3			
5 to 15 years	2	Suicide	1	—			
15 to 25 years	0	Disease of Heart	12	2			
25 to 65 years	14	Cerebral Hæmorrhage & Apoplexy	4	—			
Over 65 years	16	Improper Feeding	2	—			
		Other Causes	6	—			
	—		—	—			
	38		38	5			
	—		—	—			

THE PRINCIPAL CAUSES OF DEATH.

The Local Government Board's Table IV. shews the diseases chiefly contributing to the mortality of the Borough, the ages at death, and the distribution of deaths in the various Wards. It will be observed that the principal causes of death, and the number of deaths attributed to each, were as follows:—Diseases of the Heart (86), Cancer, Malignant Disease (63), Tuberculosis (44), Pneumonia (32), and Bronchitis (26.)

DISEASES OF THE HEART.—This group of diseases forms an exceedingly unsatisfactory classification of deaths, as the diseases included have little in common but the organ of the body affected. Diseases of the Heart contribute a considerable proportion of the total deaths even in the average population, and as they are most commonly fatal in adult and advanced life, they are apt to bulk largely in the mortality returns of a district like Scarborough, which has a high proportion of aged people. There were in all 86 deaths from Heart Disease, the same number as in 1908. None occurred under the age of 25 years, while 29 took place between the ages of 25 and 65 years, and no fewer than 57 at ages over 65 years.

CANCER, MALIGNANT DISEASE.—These diseases caused 63 deaths, compared with 50 in 1908. The liability to death from Malignant Disease increases with age, the mortality under 30 years being insignificant. As these diseases are also more commonly fatal in females, the death-rate from this group is generally high in a population which contains not only a large proportion of people in advanced life, but also an unduly great proportion of females. It is to these factors, rather than to any local influence, that the apparent frequency of deaths from Cancer is due.

TUBERCULOSIS.—Unlike the preceding groups, Tuberculosis in all its forms is one specific disease, and thus, although coming third in order of magnitude as a cause of death, is in reality the principal fatal disease. During 1909 the deaths from Tuberculosis numbered 44, as compared with 63 in the preceding year. As usual, Tuberculosis of the Lung, or Consumption, was the chief fatal form, accounting for 36 deaths. It will be noted that deaths from Consumption occur chiefly in the prime of life, while the other forms of Tuberculosis are more commonly fatal in early life. The whole subject of Tuberculosis, and the mortality in the Borough therefrom, over a long series of years, was exhaustively considered in the Report for 1906. The total registered mortality from Tuberculosis during 1909 was 1·06 and from Consumption ·86 per 1,000. The corresponding resident death-rates were 1·01 and ·84 respectively.

PNEUMONIA.—The deaths from the various forms of Inflammation of the Lungs numbered 32 in 1909, compared with 16 in the preceding year.

Pneumonia is specially fatal in early childhood and old age.

BRONCHITIS.—There were 26 deaths from Bronchitis, compared with 29 in 1908. With four exceptions they all occurred in aged people.

RESIDENTS' DEATHS FROM ZYMOTIC DISEASES.

There were in all 32 deaths of residents from Zymotic Diseases, compared with 40 in 1908, and 100 in 1907.

Of this number 6 were due to notifiable, and 26 to non-notifiable zymotics, as follows :

Notifiable Zymotics.				Non-notifiable Zymotics.			
Scarlet Fever	..	..	4	Chickenpox	..	..	1
Diphtheria	..	..	2	Diarrhoea	..	..	13
			—	Influenza	..	..	4
			6	Rheumatic Fever	..	..	6
			—	Septicaemia	..	..	1
				Puerperal Septicaemia			1
							26

The deaths from the Seven Principal Zymotic Diseases numbered 19, of which 4 were due to Scarlet Fever, 2 to Diphtheria, and 13 to Diarrhoeal Diseases.

The Zymotic Death-rate is therefore .45 per 1000, compared with .7 per 1000 in 1908.

In previous reports, stress has been laid on the fact that, contrary to popular belief, the zymotic death-rate is not a reliable index of the sanitary condition of a district, as the diseases chiefly responsible for swelling the rate in individual years, are not directly amenable to sanitary measures. It is particularly essential to bear this in mind, when the rate is so extremely low, as in 1909.

ZYMOTIC DEATH-RATE.

1903	..	..	..	1.1	per 1000.
1904	..	..	..	1.3	„ „
1905	..	..	..	.86	„ „
1906	..	..	..	1.40	„ „
1907	..	..	..	1.84	„ „
1908	..	..	..	.7	„ „
1909	..	..	..	.45	„ „

DEATHS AT ADVANCED AGES.

The population living at ages above 65 years, although comprising a small proportion of the whole, furnished 250 deaths, compared with 194 in 1908, and 269 in 1907. Thus 47.6 % or almost one-half of the deaths occurred at ages above 65 years. The chief causes of death in advanced life are diseases of the Heart, Cancer, Cerebral Haemorrhage and Apoplexy.

The following Table shows the age and sex distribution of deaths at higher ages.

	Males.		Females.		Total.
65 to 75 years	..	56	..	59	115
75 to 85 years	..	46	..	65	111
Over 85 years	..	12	..	12	24
					250

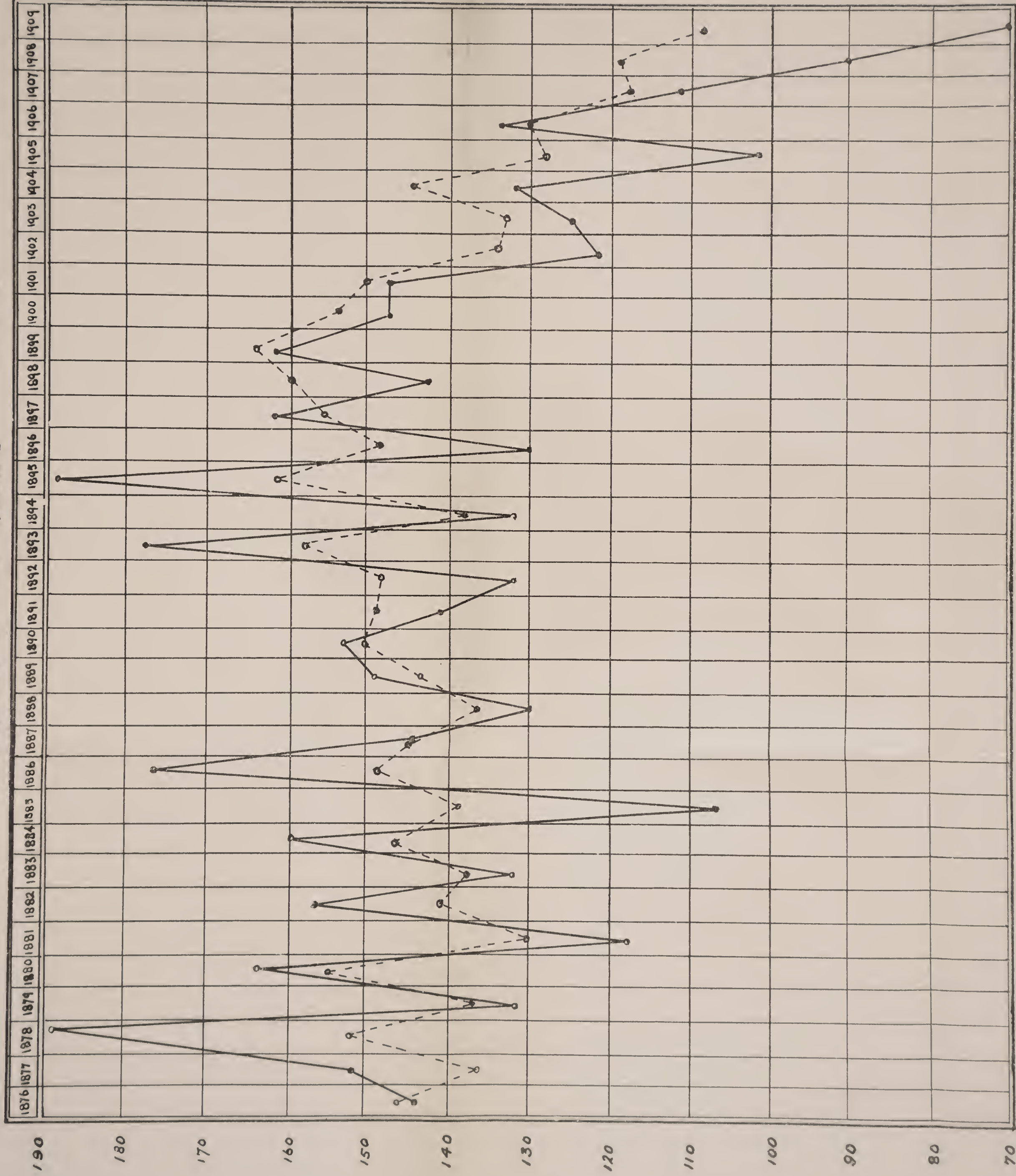
10 Residents died at ages over 90 years, one being a Centenarian.

INFANTILE DEATH RATE

1876 TO 1909 INCLUSIVE

SCARBOROUGH (GROSS RATE)

ENGLAND AND WALES



INFANTILE MORTALITY.

The diagram on the opposite page is an adaptation and extension of Chart A of the Infantile Mortality Report. It displays the course pursued by the infantile death-rate of the Borough, and of the whole country, from the beginning of 1876 to the close of 1909.

There are several points of considerable interest to be gained from a study of this diagram.

(1.)—There is an extraordinarily close resemblance between the two curves, rise and fall occurring in harmony. This correspondence is all the more remarkable when it is remembered that the figures on which the local death-rate is based form rather less than one-thousandth part of those on which the infantile death-rate for the whole country is computed.

(2.)—The infantile death-rate shews remarkable fluctuations from year to year, fluctuations which depend chiefly on the relative prevalence of Epidemic Diarrhœa, and this in turn is largely determined by the weather during the third quarter of the year.

(3.)—If the infantile death-rate in successive five-year periods from 1876 to 1900 be computed, it will be observed that there is practically no improvement, the rates being as follows:—

Scarborough.			England and Wales.		
1876-80	..	156 per 1,000.	144	per 1,000.	
1881-85	..	135 „	138	„	
1886-90	..	150 „	145	„	
1891-95	..	154 „	150	„	
1896-00	..	148 „	156	„	

With the beginning of the present century an improvement has set in, which has been maintained to the present time.

The last quinquennium (1901-05) dealt with in the Infantile Mortality Report shews a much lower infantile death-rate than in any preceding, while from 1905, with slight fluctuation, the infantile death-rate has shewn a marked and progressive decline. In the Report for 1908 the gross infantile death-rate had fallen to 92 (91·6), which was by far the lowest on record.

(4.)—From 1876 to 1897, in years of high infantile mortality, the local rate as a rule considerably exceeded the rate for the whole country. Since the latter year, the gross infantile death-rate of the Borough, while chiefly fluctuating in harmony with that of England and Wales, has been, with one trifling exception, uniformly below the latter rate. In other words, the gross infantile death-rate of Scarborough has shewn a greater improvement than that of the whole country since 1897, and this improvement has become proportionally greatest in the last two years.

During 1909 further progress has been made, as the infantile death-rate has fallen to 72 (71·5), which is practically one-half the average rate during the thirty years dealt with in the Special Report.

The results are actually more satisfactory than the figures indicate, as the proportion of illegitimate births has risen from 70 in 1908 to 107 per 1,000 births in 1909. Consequently there has been a larger number of illegitimate infants' lives at risk, among whom the death-rate is generally fully twice that of legitimate infants, and yet in spite of this unfavourable factor, the death-rate of all infants is by far the lowest on record.

While due credit should be given to the various agencies at work in promoting the physical well-being of infants, the fact must not be lost sight of that the weather during 1909 was favourable to a low infantile death-rate. The cool, wet summer was adverse to the prevalence of Epidemic Diarrhœa, and the heat wave in August was hardly of sufficient duration to neutralize this. Still, similar weather conditions have occurred frequently since 1876, and yet at no time has the infantile death-rate been so low as during 1909.

It is a remarkable fact that not a single infantile death was ascribed to Epidemic Diarrhœa, although possibly some of the five certified as due to Enteritis, may in reality have been due to the former disease.

Twenty-nine deaths, or more than half of the total, were due to Wasting Diseases, which are almost entirely pre-natal in origin.

The reduction has unquestionably been most marked in the deaths from the directly preventable diseases. While one cannot expect the infantile death-rate to be maintained at its present low level, it may be pointed out that the work now carried on will have the effect of reducing the fluctuations which have been such a marked feature in the past, and that even in "Diarrhœal" years the rate will be much lower than formerly.

The Corporation may be congratulated on the progress that has been made, but they are also urged to prosecute vigorously the measures adopted to cope with preventable diseases in infants.

MEASURES FOR THE REDUCTION OF THE INFANTILE MORTALITY.

Following upon the publication early in 1907 of the special report on the Infantile Mortality of the Borough, the Council appointed a Lady Health Visitor, and instituted a voluntary system of early notification of births. The Health Visitor began her work on the 1st July, 1907, on which date the early notification of births came into operation.

EARLY NOTIFICATION OF BIRTHS.—As the death-rate in infancy is greatest during the first weeks of life, it is of the utmost importance that measures for the preservation of infant life should be applied with the least possible delay. Unfortunately, six weeks may elapse before a birth need be registered, and there may be a further delay of four weeks before the Medical Officer of Health is apprised of a birth. To remedy this, the Registrar's returns since July 1907, have been received weekly instead of monthly, and in addition, notification to the Medical Officer of Health, of births within 48 hours of their occurrence, has been encouraged by the payment of 1/- to the first person notifying. On receipt of the notification, the Health Visitor calls, verifies the fact of birth, and offers her services. Thus

without delay competent practical advice regarding the care of the infant is secured. The number of visits paid to a particular infant depends entirely on the circumstances of the case; puny, delicate infants, and those whose mothers are inexperienced or ignorant, naturally receiving more attention than infants who are well cared for and thriving. In addition, from the weekly returns of the Registrar, the Health Visitor selects cases which seem likely to require her attention. By these various methods a considerable proportion (52·1) of all the infants born during the year came under her care for longer or shorter periods. The voluntary notification of births has met with a considerable measure of success. During the latter half of 1907, the number of births notified was 29·3% of the whole: for 1908 the percentage has risen to 42·5, and for 1909 it has been maintained at 42·2%. These results certainly greatly surpassed expectations, and it may now be assumed that the voluntary system of notification of birth has become well established.

Moreover, notifications have been received from every district of the town, as the following Table shows:—

N.W.		N.		C.		E.		W.		S.		Town.
77	..	74	..	54	..	138	..	54	..	2	..	399

Since the scheme came into operation the (adoptive) Notification of Births Act, 1907, has been passed, and it became necessary to weigh the relative advantages conferred by the new Act, and the present voluntary system. This has been done at length in previous Reports, and all that need be said here is, that there are no satisfactory grounds for abandoning the voluntary system which has proved so effective.

It may be added that weekly returns of notifications of births are sent to the Registrar, so that he is able to keep a check on the registration of births, just as he would under the new Act.

THE WORK OF THE HEALTH VISITOR.—In seeking to estimate the value of the Health Visitor's work, it is important to bear in mind the variety and force of the adverse influences with which she has to contend in her efforts to preserve and improve infant life.

During infancy, as at all other periods of life, the death-rate is highest among the poorer sections of the community, and lowest among the well-to-do. Fortunately, the main factor in determining the mortality is not so much poverty in itself, as those accompanying circumstances which it generally denotes, viz, a low standard of housing, hygiene, education, and even of conduct. While exerting a considerable influence at all periods of life, these conditions are specially harmful in infancy. The infant is entirely at the mercy of his surroundings, and of those who have him in charge. At the same time he is extraordinarily sensitive to unfavourable conditions which, at a later period of life, would be less potent for harm.

The work of the Health Visitor is therefore properly concerned with removing or mitigating those unfavourable conditions so frequently met with among the poor, and by no means unknown among those in better circumstances.

There are special difficulties to be encountered in a town like Scarborough, where employment is largely seasonal, and where also the family income of many poor households is largely dependent on the earnings of the mother. When a mother is obliged to earn her living the child cannot receive the care which it otherwise would, and breast feeding becomes an impossibility. It is also to be remembered that this female employment is at its height during the Summer months, the very time at which extra care must be taken to preserve infants from the highly fatal Epidemic Diarrhœa.

Great as the difficulties outlined above appear to be, they are not unsurmountable, and that they have in many instances been overcome is partly evidenced by the remarkable fall in the infantile death-rate.

(1.)—ORDINARY VISITS.—The first step towards improvement is taken when the confidence of the mother is secured. Then plain practical advice on the care of the infant is given, and by repeated visits the Health Visitor is able to encourage the mother, and also to note how far her instructions are being carried out. Verbal instructions are supplemented by a copy of the leaflet "How to bring up a baby," and by a wall-card "Hints on the Feeding and Care of Infants," both published by the National League for Physical Education and Improvement.

Of the leaflet 350 copies, and of the card 120 copies have been distributed during the year. A portable spring balance is used to weigh the babies weekly, the results being plotted out on a chart. This enables a mother to see how her child is progressing compared with the average healthy infant. The prejudice, chiefly superstitious, against the weighing of babies has largely disappeared, and a healthy rivalry between mothers in the care of their infants has been promoted. By keeping in touch with the various philanthropic agencies in the Borough, the Health Visitor has frequently procured suitable food and clothing for mother and child in deserving necessitous cases. Money entrusted to her by those interested in the work has been judiciously expended in the purchase of food, clothing, and improved feeding bottles. Of the last, 60 have been given gratuitously during the year, while in many other cases the old objectionable feeding bottles with the rubber and glass tubes have been voluntarily discarded in favour of the more hygienic boat-shaped bottle with the teat directly affixed.

(2.)—MOTHERS' MEETINGS.—It had long been felt that if arrangements could be made for a number of mothers to bring their infants every week to some convenient centre, much of the time spent by the Health Visitor in going from house to house would be economised, while the meeting together of the mothers would induce a healthy emulation in the care of their infants. Through the kind interest of certain ladies a large room at the Adult School, St. Sepulchre Street, was made available for this useful work, on purely nominal terms, and weekly meetings were held from the end of September. At these meetings mothers had full opportunity of consulting the Health Visitor regarding the care of their infants. The babies were weighed on a special balance with wicker basket attached, and the results were recorded on a separate chart for each child. All kinds of articles of clothing for infants were displayed

on a table, and sets of patterns with written instructions were distributed. Under the guidance of the Health Visitor many mothers have made suitable clothing for their babies, from the patterns supplied.

Cots made, at the cost of a few pence, out of banana crates, packing boxes, etc., were exhibited, and in several cases these have been copied at home. Various types of improved feeding bottles were shown, while cards and leaflets on the rearing of infants were distributed.

At these meetings the Health Visitor was supported by a willing band of ladies, who not only assisted in the work, but provided tea for the mothers.

The cordial thanks of the Corporation, no less than those of the Medical Officer of Health, are certainly due to these ladies who have evinced such a practical interest, at the cost of no small amount of time and money, in the work which is being carried on for the preservation and betterment of infant life. So successful were these meetings that steps were taken to open another centre for the Seamer Road district. Anticipating next year's Report, it may be said that since the beginning of 1910 weekly meetings have been held on similar lines, and on equally generous terms, at St. James's Church Institute.

(3.)—"BABIES WELCOME."—This useful scheme was set on foot before the close of the year. Its object and method will be readily understood from the following Rules which are printed on the Membership Card.

"The chief object of the "Babies Welcome" is to encourage expectant mothers to save, every week, what money they can spare, to meet the expenses of the confinement, and to provide proper clothing for the infant.

Expectant mothers are strongly advised to become members of the "Welcome" seven months before the probable date of confinement.

Each member should make an effort to pay in something, however little, every week.

The Lady Collector, on receiving the money, will mark on the card the amount paid, and initial it.

The card is kept by the member, so that she knows exactly how much she has saved.

Each member must agree not to withdraw the money saved until within a month of the confinement, or unless she is leaving the Borough.

When the money is withdrawn, the Health Visitor will gladly advise how best to spend it in the interests of the mother and infant."

(4.)—INFANT PROTECTION VISITOR.—On the advice of the Medical Officer of Health the Corporation sanctioned the appointment by the Board of Guardians of the Health Visitor as Infant Protection Visitor under the Children Act, 1908. From the Section of the Act quoted below it will be readily understood how appropriate it is that such duties should be discharged by the Health Visitor.

CHILDREN ACT, 1908, SECTION 2.

(i.)—"It shall be the duty of every Local Authority to provide for the execution of this Part of this Act within their district, and for that purpose they shall from time to time make inquiry whether there are any persons residing therein who undertake the nursing and maintenance of infants in respect of whom notice is required to be given under the foregoing Section.

(ii.)—If in the district of any Local Authority any persons are found who undertake the nursing and maintenance of such infants as aforesaid, the Local Authority shall appoint one or more persons of either sex to be Infant Protection Visitor, whose duty it shall be from time to time to visit any infant referred to in any notice given under this Part of this Act, and the premises in which they are kept, in order to satisfy themselves as to the proper nursing and maintenance of the infants, or to give any necessary advice or directions as to their nursing and maintenance.

(iii.)—If any person undertaking the nursing and maintenance of any such infant refuses to allow any such visitor or other person to visit or examine the infants or the premises in which they are kept, he shall be guilty of an offence under this Part of the Act."

(5.)—CONSUMPTION.—The Health Visitor advised that disinfection should be carried out after a death from Consumption in 24 instances. She also paid 66 visits to 14 cases of the disease notified under the voluntary system, or under the Tuberculosis Regulations, 1908. Sputum cups and disinfectant were provided in two cases, while leaflets on the precautions to be observed by the patient were distributed to 14.

SUMMARY OF THE HEALTH VISITOR'S WORK.

Early Notifications	..	..	..	..	..	331
Other Births visited	..	..	..	..	..	68
						<u>399</u>
No of Visits paid to Infants	..	..				3028

WARD DISTRIBUTION OF BABIES VISITED.

How Fed.					N.W.	N.	C.	E.	W.	S.	Total.
					77	74	54	138	54	2	399
Breast	...	...	..	...	45	55	35	114	35	...	284
Bottle	...	...	...	...	8	8	7	18	17	1	59
Unknown	...	...	...	...	24	11	12	6	2	1	56
											<u>399</u>

SANITARY CONDITION OF HOUSE.

	N.W.	N.	C.	E.	W.	S.	Total.
Good... ..	27	25	16	47	19	1	135
Fair	20	33	26	63	18	...	160
Dirty... ..	5	6	6	24	5	...	46
Unknown	25	10	6	4	12	1	58
	77	74	54	138	54	2	399

CHILDREN ACT, 1908.—MAY, 1909, TO DECEMBER, 1909.

No. of houses registered	43
No. of children	47
No. of visits	169

PHTHISIS.

Visits paid in connection with deaths	24
Disinfection carried out after death	13
Visits paid in connection with cases notified ..	66
Cases supplied with Sputum-cups and disinfectant	2
Leaflets given	14

THE MORTALITY OF ADOLESCENCE.

As the weekly returns of the Registrar for a considerable number of years have been carefully preserved, it has been possible to investigate the mortality in the Borough at various periods of life on a more adequate numerical basis than the returns of a single year could possibly afford. In this way, the mortality from 1876-1906 has been analysed for Infancy, Early Childhood, and School Ages, while in the present Report it is proposed to deal with the mortality of Adolescence. The method pursued in each of these enquiries has been to abstract on a separate card each death at the age period under consideration. The cards are then classified in a variety of ways, and the outstanding features of the mortality are readily obtained.

Adolescence extends from the onset of puberty to adult life, and is represented by the period from 15 to 25 years.

In the Report for 1908 a diagram shewed the course pursued by the death-rate at all age-periods from infancy to old age. Extraordinarily high in infancy, the death-rate falls rapidly to its minimum between the ages of 10 and 15 years, after which it slowly rises.

Adolescence is the first period of life during which the risk of death steadily increases with age. During the thirty-one years 1876-1906 there were in all 929 deaths in adolescence ; 420 occurring between the ages of 15 and 20 years, and 509 from 20 to 25 years.

For both sexes the death-rate was 4·45 ; for males 5·25, and for females 3·93 per 1,000 living. Between 15 and 20 years the death-rate was 3·89. and between 20 and 25 years 5·04 for both sexes ; thus the latter half of adolescence shews a higher death-rate than the first.

THE PRINCIPAL CAUSES OF DEATH IN ADOLESCENCE.

The chief fatal diseases, and the proportions of the total mortality due to them, were as follows :—

Tuberculosis	46·2 %
Infectious Diseases	9·1 %
Diseases of the Heart	7·1 %
Diseases of the Digestive System	6·3 %
Accident	5·5 %
Diseases of the Respiratory System	4·5 %
All other causes	21·3 %
	<hr/>
	100·0 %
	<hr/>

TUBERCULOSIS.—As in the immediately preceding period of life (School Ages, 5-15 years), Tuberculosis is in Adolescence by far the principal fatal disease. But while during School Ages it caused 27·2 %, or little more than one quarter of the total deaths, in Adolescence it was responsible for 46·2 %, or nearly one-half of all the deaths. Further, the death-rate from Tuberculosis of the Lungs, or Consumption, is five times greater than at School Ages.

COMMON INFECTIOUS DISEASES.—The proportion of the total deaths caused by this group of diseases attained a maximum of 21·7 % in Early Childhood, from which it fell to 9·1 % during Adolescence.

The chief fatal disease was Enteric Fever, which accounted for almost one-half of the deaths from infectious diseases. Puerperal Fever, affecting of course, only one sex, appears for the first time at this period of life.

DISEASES OF THE HEART.—From School Ages onwards these diseases account for an ever-increasing proportion of the total deaths.

DISEASES OF THE DIGESTIVE SYSTEM.—The principal members of this group were Ulcer of the Stomach and Appendicitis.

ACCIDENT caused 52 deaths, or 5·5 % of the whole. The majority of deaths under this head were due to drowning.

DISEASES OF THE RESPIRATORY SYSTEM.—From being the principal fatal diseases in Early Childhood, Diseases of the Respiratory System declined in importance during School Ages, until in Adolescence they only formed 4·5 % of the total deaths. The majority of deaths from this class was due to Pneumonia. Adolescence is the period of life during which diseases of the Respiratory System are least commonly fatal.

THE MORTALITY OF ADOLESCENCE, 1876-1906 (15-25 YEARS.)

Disease.	15-20 years.		Both Sexes.	20-25 years.		Both Sexes.	15-25 years. Both Sexes.
	Males.	Females.		Males.	Females.		
TUBERCULOSIS	78	122	200	97	133	230	430
Phthisis	61	99	160	79	119	198	358
Tuber-Meningitis	3	4	7	2	4	6	13
Tabes Mesenterica	4	6	10	5	5	10	20
Other Tuber. Diseases	10	13	23	11	5	16	39
INFECTIOUS DISEASES	16	21	37	19	29	48	85
Enteric Fever	10	14	24	13	9	22	46
Puerperal Fever .. .. .	..	1	1	..	12	12	13
Scarlet Fever	3	1	4	2	2	4	8
Influenza	1	3	4	1	2	3	7
Others	2	2	4	3	4	7	11
DISEASES OF THE HEART	16	12	28	20	18	38	66
DISEASES OF THE DIGESTIVE SYSTEM	12	11	23	12	24	36	59
ACCIDENT	17	8	25	22	5	27	52
DIS. OF THE RESPIRATORY SYSTEM	5	12	17	10	15	25	42
Pneumonia	5	10	15	10	9	19	34
Bronchitis .. .. .	..	2	2	..	4	4	6
Pleurisy .. .. .	..	..	..	..	2	2	2
ALL OTHER CAUSES	47	43	90	56	49	105	195
ALL CAUSES	191	229	420	236	273	509	929

GROSS MORTALITY OF ADOLESCENCE (15-25 YEARS.)

Year.	15-20 years.		20-25 years.		15-25 years.		Both Sexes.	
	Males.	Females.	Males.	Females.	Males.	Females.	15-20	20-25
1876 ..	7	7	3	6	10	13	14	9
1877 ..	7	8	6	10	13	18	15	16
1878 ..	9	9	8	7	17	16	18	15
1879 ..	6	7	8	15	14	22	13	23
1880 ..	10	8	6	6	16	14	18	12
	39	39	31	44	70	83	78	75
1881 ..	5	9	8	10	13	19	14	18
1882 ..	7	7	7	17	14	24	14	24
1883 ..	5	16	9	10	14	26	21	19
1884 ..	1	4	6	9	7	13	5	15
1885 ..	4	8	8	13	12	21	12	21
	22	44	38	59	60	103	66	97
1886 ..	7	10	5	12	12	22	17	17
1887 ..	4	9	9	7	13	16	13	16
1888 ..	7	8	6	8	13	16	15	14
1889 ..	6	6	7	8	13	14	12	15
1890 ..	6	9	5	7	11	16	15	12
	30	42	32	42	62	84	72	74
1891 ..	9	3	13	7	22	10	12	20
1892 ..	9	7	11	11	20	18	16	22
1893 ..	9	7	6	10	15	17	16	16
1894 ..	7	4	11	12	18	16	11	23
1895 ..	6	10	9	10	15	20	16	19
	40	31	50	50	90	81	71	100
1896 ..	4	8	4	6	8	14	12	10
1897 ..	4	8	3	5	7	13	12	8
1898 ..	8	6	11	8	19	14	14	19
1899 ..	5	8	13	7	18	15	13	20
1900 ..	5	8	5	7	10	15	13	12
	26	38	30	33	62	71	64	69
1901 ..	7	7	15	6	22	13	14	21
1902 ..	3	7	4	6	7	13	10	10
1903 ..	6	7	9	6	15	13	13	15
1904 ..	3	3	4	12	7	15	6	16
1905 ..	6	4	9	10	15	14	10	19
	25	28	41	40	66	68	53	81
1906 ..	9	7	8	5	17	12	16	13
Total ..	191	229	236	273	427	502	420	509

INFECTIOUS DISEASES.

The following Table shews the relative prevalence of the notifiable infectious diseases since notification was established at the beginning of 1890 by the coming into force of the Scarborough Improvement Act. Under this Act, Erysipelas was not notifiable, so that the total notifications per annum from 1890-1899 inclusive are not comparable with those from 1900 onwards, which latter were made under the Infectious Diseases Notification Extension Act of 1899. The notifications of the individual diseases, on the other hand, may be properly compared, and the course pursued by each disease since the beginning of 1890 can be readily followed.

NOTIFICATIONS OF INFECTIOUS DISEASES.

Year.	Smallpox.	Scarlet Fever.	Diphtheria and Membranous Croup.	Typhus Fever.	Enteric and Continued Fever.	Puerperal Fever.	Erysipelas.	Total.
1890....	..	61	27	..	40	1	Not notifiable until 1900.	129
1891....	..	41	23	..	41	..		105
1892....	51	78	13	..	25	..		167
1893....	46	143	21	..	44	..		254
1894....	..	136	15	..	64	2		237
	97	459	99	..	214	3		892
1895....	..	59	12	..	109	1		181
1896....	..	86	8	..	42	4		140
1897....	..	202	6	1	23	2		234
1898....	..	151	25	..	27	1		205
1899....	..	90	57	..	69	2		218
	..	588	108	1	270	10	..	978
1900....	..	152	23	..	25	1	16	219
1901....	..	122	29	..	33	1	15	199
1902....	..	64	64	..	20	1	17	166
1903....	27	55	31	..	20	3	25	161
1904....	2	93	16	..	16	1	24	152
	29	486	163	..	114	7	97	897
1905....	..	54	14	..	10	1	20	99
1906....	..	28	18	..	14	1	33	94
1907....	..	19	12	..	20	3	17	71
1908....	..	47	11	..	16	..	11	85
1909....	..	226	16	..	3	1	15	261
	..	374	71	..	63	6	96	610

Exclusive of Erysipelas.

It will be observed that, in spite of the addition of Erysipelas, the notifications in the latter half of the period included in this Table, are fewer than in the first half. Further, the last five year period shows by far the smallest number of notifications, although the average population was then fully 7,000 more than that of the first five year period.

SCARLET FEVER.—The Table shows clearly that the notifications of Scarlet Fever ran up to three figures every few years until the close of 1901. From this date the number, with the exception of 1904, was very much below 100, and the extremely low minimum of 19 was reached in 1907. At no earlier period is such a marked and continuous decline noticeable. Towards the end of 1908 Scarlet Fever showed renewed activity, and the circumstances were such as to justify the Medical Officer of Health in warning the Council early in 1909 that an epidemic was to be feared. This forecast, unfortunately, proved to be correct, no fewer than 226 notifications of the disease being received during the year. It should be observed, however, that this total includes a number of cases of German Measles, of which there was an outbreak in the spring of the year. German Measles is an infectious disease of an extremely mild character, whose only importance consists in the close resemblance it frequently exhibits to Scarlet Fever, on the one hand, and to Measles on the other. During the prevalence of mild Scarlet Fever particularly, cases of German Measles are liable to be wrongly diagnosed. A circular-letter was therefore sent to the medical practitioners calling their attention to the occurrence of Epidemic Rose-rash or German Measles. As is well known, Scarlet Fever tends to assume epidemic proportions after varying intervals of years, and this increase is quite independent of any specific local cause, such as an infected milk supply. The present epidemic may be ascribed to two main causes.

(1.)—Owing to the remarkable and prolonged decrease of the disease during recent years, not only has the number, but the proportion of individuals unprotected against infection by a previous attack of the disease, greatly increased. In other words, the population as a whole has become much more susceptible to the infection of Scarlet Fever.

(2.)—The extremely mild character of the great majority of the cases has been the chief agent in spreading infection. As has repeatedly been pointed out in these Reports, the mild unrecognised case of infectious disease is the most dangerous from the point of view of the public health. In a severe attack, the patient is so decidedly ill that he takes to bed early in the disease, and has medical attention soon after the onset. The pronounced character of the symptoms lead to the immediate recognition of the disease, and the patient is properly isolated in the Sanatorium or at home, without loss of time. His opportunities of infecting others are therefore greatly restricted. On the other hand, even when Scarlet Fever is known to be prevalent, parents find it hard to believe that a trifling feverish attack with slight sore throat, from which the child apparently completely recovers in a day or two, is in reality Scarlet Fever, and that the patient, although seemingly well, is still highly infectious to others. Under these circumstances it is easy to understand how such children never receive any medical attention, are neither confined to bed nor to the house, but are allowed to mingle freely with others at the school or in the street. An ordinary case of Scarlet Fever is notified within three days of the onset of symptoms, as by this time the characteristic rash has generally developed. The following Table shows that in the majority of cases this has been done, but most significant from an epidemic point of view is the comparatively large number of cases which have not been notified until much later in the disease.

SCARLET FEVER.—INTERVAL (IN DAYS) BETWEEN BEGINNING OF ILLNESS
AND NOTIFICATION.

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	2 to 3 weeks.	Over 3 weeks.
8	40	57	60	20	8	6	3	3	2	3	1	2	1	3	10	9

Although a few of these late notifications represent cases which have been carefully isolated and kept under observation by a medical man, the great majority refer to cases which have received no medical attention until they had subsequently infected other members of the household. Such "missed cases" have undoubtedly been the most potent agents in spreading infection.

The following Table shows the distribution in the various Wards of the Scarlet Fever cases for each quarter of the year. The comparative immunity of the South Ward is to be attributed partly to its isolated position, and also to the extremely small proportion of young children which its population contains.

WARD DISTRIBUTION OF SCARLET FEVER CASES.

Quarter.	N.W.	N.	C.	E.	W.	S.	Town.
First	16	5	10	6	26	1	64
Second	27	10	6	2	4	1	50
Third	17	11	20	3	4	4	59
Fourth	14	17	3	17	1	1	53
Year	74	43	39	28	35	7	226

AGE INCIDENCE.—From the Table below it will be observed that the overwhelming majority of cases occurred at ages from 5—15 years. This is the time of life at which susceptibility to the infection of Scarlet Fever is greatest.

AGE-INCIDENCE OF SCARLET FEVER.

Under 1 year.	1-5.	5-15.	15-25.	25-65.	65 and over.	All Ages.
2	39	153	17	15	..	226

SCHOOL DISTRIBUTION.—As shown above the maximum number of cases occurred at school ages, but it must not therefore be inferred that the schools were the chief agents in spreading infection. During the various holidays, and more especially during the long summer vacation, there was no appreciable alteration in the age incidence of the cases. With one exception, there was no considerable series of cases affecting one Department or School, and in the exceptional instance, German Measles cases were to some extent confused with Scarlet Fever. When more than one case occurred in a class, or when a case was found to have been at school for some days in an infectious condition, the class was kept under observation, suspicious cases of illness excluded, and the class room, etc., disinfected.

SCHOOL DISTRIBUTION OF SCARLET FEVER CASES.

Quarter.	Central.	Fa Isgrave.	Friarage.	Gladstone Road.	Higher Grade.	All Saints.	St. Martin's.	St. Mary's.	St. Peter's.	St. Thomas.	Total.
First	9	14	1	8	1	2	1	3	...	...	39
Second	17	1	...	10	2	...	...	1	...	2	33
Third	14	1	1	6	2	1	2	1	...	1	29
Fourth	11	...	14	10	...	...	1	3	...	1	40
Year	51	16	16	34	5	3	4	8	...	4	141

MILK SUPPLY.—At no time was there the slightest evidence that the disease was being disseminated by infected milk supplies.

MULTIPLE CASES.—In 32 instances more than one case occurred in a household: 2 cases in 22 houses, 3 in 6 houses, 4 in 3 houses, and 6 in 1 house. The last mentioned is a striking example of how Scarlet Fever spreads in a family when the disease is not recognised. One child after the other contracted the disease in a mild form, and it was only when the last child sickened with a more pronounced attack that the parents informed the Medical Officer of Health. There had been no medical attendant summoned throughout.

ENTERIC FEVER.—On reference to the Table at the beginning of the Section on Infectious Diseases, it will be noted how very markedly Enteric Fever has declined since 1899. During the present year the unprecedentedly low minimum of 3 cases was reached. All of these cases were definitely imported infections from other districts.

DIPHTHERIA.—After showing a marked increase during the quinquennia 1900—1905, Diphtheria has very decidedly declined in prevalence, the latest five year period showing by far the smallest number of cases since the establishment of notification in 1890. During the year there were 16 notifications compared with 11 in 1908.

PUERPERAL FEVER.—There was only one case of this disease during the year.

ERYSIPELAS.—Of recent years the notifications of Erysipelas have distinctly decreased. The notification of these cases is of very questionable utility.

SANATORIUM.—There were in all 194 cases of Infectious Disease admitted to the Sanatorium during the year. Of these, 182 were Scarlet Fever, 10 Diphtheria, and 2 Enteric Fever.

NON-NOTIFIABLE INFECTIOUS DISEASES.

For information regarding the occurrence and prevalence of these diseases the Medical Officer of Health has to depend entirely on returns received from schools. Teachers in the public Elementary Schools are expected to inform him, without delay, of the occurrence of a case, or suspected case, of infectious disease among the children under their care. Special forms are supplied on which these cases are to be reported. Unfortunately, this informal notification is not uniformly observed, so that the figures given below do not necessarily include all the cases which occurred.

The non-notifiable infectious diseases occur chiefly among children in the Infant Departments. Measles, Whooping Cough, Chicken Pox, and Mumps are all highly infectious, but while the two former are liable to prove very fatal to young children, Chicken Pox and Mumps are of little importance in this respect.

Compared with 1908, there is a considerable decrease in the number of cases, the total being 173 instead of 297.

As in the previous year, the cases were most numerous in the second quarter, but were least so in the fourth quarter, instead of in the third as in 1908.

The largest number of cases occurred in Gladstone Road School, the next highest being in Falsgrave School. Again, as in 1908, no notifications were received from the Higher Grade, or St. Peter's Schools.

Chicken Pox was the most prevalent disease, cases being reported from seven schools, while the total number was 82, compared with 62 in 1908.

Measles, which also affected seven schools, came next in order of importance with 57 cases, compared with 27 in the previous year. More than half of the cases occurred in Falsgrave School.

Whooping Cough showed a very great diminution on the number recorded in the previous year. There being in all 12 cases, compared with 109. Nearly all of them occurred in Gladstone Road School.

As has already been emphasized in these Reports, the prevention of non-notifiable infectious disease lies very largely in the hands of the teachers, many of whom have shown themselves keenly alive to their responsibility in this respect, and have rendered valuable service in the suppression of disease. The teacher is familiar with the normal appearance of

each child, has him under observation for a considerable portion of the day, and can therefore readily detect the first sign of illness. Were each child, noted to be ill, excluded at once without waiting for the appearance of definite symptoms, the amount of infectious disease among school children would be greatly diminished. No child obviously ill should be allowed to remain at school, as he is unable to benefit properly by instruction, while if his illness ultimately proves to be infectious, delay in excluding him from school greatly increases the risk of infection being conveyed to other members of his class.

A great obstacle to the prevention of these diseases in schools is the undue importance attached to attendance. Parents, anxious that their children should receive the coveted prizes, send them to school when they are obviously ailing, and not a few teachers, fearing lest their attendance record be lowered, omit either to exclude such children, or to report their illness to the Medical Officer.

They fail to realise that, even from the point of view of attendance, it is far better that a single child should lose a few attendance marks, owing to suspicious illness, than that several children should afterwards be absent for weeks on account of having contracted infectious disease from him.

With the re-opening of the schools in September two decisions of the Education Committee, which should prove beneficial in reducing the prevalence of infectious disease, came into operation.

(1.)—Prizes based solely on attendance were abolished.

(2.)—The minimum age of admission to school was raised to 4 years.

It cannot be doubted that when the former becomes widely known there will not be the same inducement for parents to send their children to school irrespective of their state of health. As regards the latter regulation, it is a step in the right direction, but should subsequently be improved upon by the age of admission being raised to 5 years. Fully 90% of the deaths from the ordinary infectious diseases occur under the age of 5 years, so that the exclusion of children of lower ages from school is highly desirable.

CASES OF NON-NOTIFIABLE DISEASE REPORTED FROM SCHOOL.

Quarter of Year.				Central	Falgrave.	Friarage.	Gladstone Road.	Higher Grade.	All Saints.	St. Martin's	St. Mary's	St. Peter's.	St. Thomas.	Total.
1st	...	...	...	10	...	8	13	...	...	...	5	...	14	50
2nd	...	...	...	...	23	4	10	...	1	25	6	...	...	69
3rd	...	...	...	4	9	5	9	...	7	...	...	...	...	34
4th	...	...	...	1	...	8	5	...	3	1	1	...	1	20
1909 ..	...	...	...	15	32	25	37	...	11	26	12	...	15	173
1908...	...	...	...	46	2	43	126	...	5	10	23	..	42	297
Difference	...	...	...	-31	+30	-18	-89	...	+6	+16	-11	..	-27	-124

SCHOOL DISTRIBUTION OF NON-NOTIFIABLE INFECTIOUS DISEASE.

Disease.	Central.	Falsgrave.	Friarage.	Gladstone Road.	Higher Grade	All Saints.	St. Martin's.	St. Mary's.	St. Peter's.	St. Thomas'.	1909.	1908.
Measles ... ..	...	30	9	6	...	7	1	3	...	1	57	27
Whooping Cough ...	...	...	...	10	...	...	...	2	...	...	12	109
Chicken Pox	13	...	8	12	...	4	25	7	...	13	82	62
Mumps	1	...	...	2	...	...	...	...	...	...	3	59
Other Diseases ...	1	2	8	7	...	...	...	...	...	1	19	40
Total	15	32	25	37	...	11	26	12	...	15	178	297

THE PREVENTION OF CONSUMPTION.

In the Reports for previous years the subject of Tuberculosis, and more particularly Tuberculosis of the Lungs or Consumption, has been dealt with at considerable length, and from various points of view. Every effort has been made to bring before the Council and the town at large the supreme importance of this disease in relation to the Public Health of the Borough. From an analysis of the deaths over a long series of years (31) it has been shown that Tuberculosis, in its various forms, is responsible for almost one-ninth of the total mortality of the Borough, a proportion which is not approached by any other disease, while Tuberculosis of the Lungs or Consumption, caused no less than one-thirteenth of the total number of deaths registered. It must not be inferred from these facts that Tuberculosis, or its chief fatal form Consumption, is unduly prevalent in the Borough, as the local death-rate from Tuberculosis is lower than that of the country in general. But the important fact remains that for Scarborough, as for the whole country, Tuberculosis is the principal fatal disease. Yet Tuberculosis is emphatically a preventable disease, and the chief measures for its repression have been already indicated in former Reports. Unfortunately it cannot be said that the public have realised the overwhelming importance of Tuberculosis as a cause of illness, death and poverty, or that they have been at all anxious to carry out the various measures for its repression. This apathy, which is all the more reprehensible in a health resort, is evidenced by the following facts:—

(1)—The complete failure of the voluntary notification of Consumption, and (2) the comparative infrequency with which the offer of disinfection after a death from Consumption (the very minimum of preventive measures) is accepted.

The failure of the Voluntary Notification of Consumption, instituted in 1904, is apparent from the following Table.

Year.	Cases Notified.	Deaths Registered.
1904	.. 25	.. 41
1905	.. 12	.. 39
1906	.. 5	.. 33
1907	.. 6	.. 46
1908	.. 9	.. 51
1909	.. 5	.. 35

It is generally agreed that there are at least 4 cases of Consumption for every death registered therefrom, but as in the above return the number of notifications is only a fraction of the number of deaths from Consumption, it is clear that only an insignificant proportion of the existing cases is notified.

Further, the number of notifications shows no tendency to increase with succeeding years. Medical Practitioners are reminded that the Voluntary Notification of Consumption was instituted with their approval, a fact which makes the dwindling number of notifications all the more regrettable.

No action can be taken by the Sanitary Authority for the prevention of infection from any particular Consumptive, until they have been apprised of the existence of the case by notification.

It cannot be too widely known that notification is strictly confidential, no publicity whatever being given to the information thus acquired.

No restrictions of any kind are placed upon the Consumptive or his household, nor are any legal penalties incurred by failure to carry out the advice given by the officers of the Sanitary Authority. The whole object is to help the Consumptive to recover, and to minimise the risk of infection either to the other members of the household or to the general public. The notifying practitioner has the option of saying whether he wishes inquiries to be made or not. In the latter case, of course, notification is of little use. The Health Visitor advises the patient or those in charge of him, regarding the simple hygienic precautions necessary to prevent infection, and to promote recovery.

Sputum-cups and disinfectant are provided where necessary, and leaflets containing plain instructions are distributed. On the application of medical men, periodical disinfection of the sickroom, bedding and clothing will be carried out. After a death from Consumption, the Health Visitor offers similar disinfection, so that no further risk of infection may be caused.

Towards the end of 1908, as the result of repeated representations by the Medical Officer of Health, the latter was given permission to utilise part of the spare accommodation at the Sanatorium, for the temporary isolation and training of consumptives. Unfortunately, the epidemic prevalence of Scarlet Fever prevented this scheme being put into operation, as all the accommodation was required. In the words of the 1907 Report, the proposal is that

“the patient should be kept at least a month, during which time he could be taught the precautions to be observed with the expectoration, the advantages of strict cleanliness of person and surroundings, and the benefits of sunlight and fresh air. So short a stay would have little value as a curative agent, but the patient would return to a thoroughly cleansed and disinfected house, drilled to some extent in the precautions against the spread of the disease, and with some appreciation of the conditions which promote health. With even a small number of beds reserved for this purpose, a comparatively large number of Consumptive patients could be dealt with yearly, and the educational value of such treatment can hardly be over-estimated.”

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1908.

These important Regulations came into force at the beginning of the year. They provide for the notification to the Medical Officer of Health, of all cases of Consumption under the care of the Board of Guardians, whether within the Workhouse or without.

Notification must be made by the following persons :—

(1)—The Medical Officer of a Poor-Law Institution, regarding any Consumptive admitted, giving the previous address of the patient.

(2)—A District Medical Officer, regarding any Poor-Law case of Consumption under his care, giving the address of the patient.

(3)—The Superintending Officer of a Poor-Law Institution, giving the intended address of any Consumptive leaving the Institution.

(4)—A Relieving Officer, regarding the change of address of any Poor-Law case of Consumption in his district.

By these various notifications, any case of Consumption under the care of the Board of Guardians is kept continually under observation, and measures for the prevention of infection can be taken by the Sanitary Authority. During the year 21 notifications concerning 14 persons were made under the Public Health (Tuberculosis) Regulations. All cases outside the Workhouse were enquired into by the Health Visitor, who gave the necessary instructions for the prevention of infection. Sputum-cups and disinfectant were supplied in two cases.

BACTERIOLOGICAL EXAMINATIONS.

The number of specimens examined by the Medical Officer of Health was 92, compared with 51 in 1908. This total includes repeated examinations of swabs from convalescent patients, and also from contacts with Diphtheria.

Disease.	Positive.	Negative.	Total.
Diphtheria	23	60	83
Enteric Fever .....	..	..	..
Tubercle	3	6	9
Total	26	66	92

In addition to the above, numerous bacteriological tests were applied to a trial mechanical filter at Irton. These enquiries were not completed at the end of the year.

CHOLERA AND PLAGUE ORDER.—Information regarding the prevalence of these diseases at foreign ports was regularly forwarded to the Superintendent of Customs. The S.S. Scotia, from Rotterdam, via Grimsby, was boarded and medically inspected. All on board were found to be in good health.

CLEANSING AND SCAVENGING.

The Borough Engineer has kindly furnished the following account of the work done by the Cleansing Department during the year.

(1)—STREET CLEANSING.—For convenience of working, the Borough is divided into 8 districts. The length of street swept weekly by machine and hand is 42 miles. The main thoroughfares are cleansed twice daily in winter, and four times daily in summer.

Owing to the introduction of the street orderly-bins, such frequent scavenging has not been required in the streets provided with them, viz.:—Westborough, Newborough, St. Nicholas Street, Falconer's Road, Huntriss Row and Hanover Road. The side streets are swept thrice weekly in the winter and daily in the summer. From Whitsuntide till the end of September a man is specially charged with removing from the Sands paper, glass and other rubbish left by the numerous excursionists. In winter the Sands are attended to by the ordinary staff.

The total quantity of street sweepings collected was 7,504 loads, compared with 8,016 in 1908. There were also removed 1,199 loads of gully refuse, and 3,261 loads of snow. 516 loads of sand and 43 loads of gravel were spread in the streets during the year.

(2)—STREET WATERING.—During the year 13,220 loads or 3,447,320 gallons of water were used for this purpose.

(3)—REMOVAL OF REFUSE.—The refuse dealt with is of three kinds, (1) dry or ashpit refuse, (2) wet or privy refuse, and (3) fish refuse. In winter house refuse is collected weekly, and in summer twice a week. From Hotels and Boarding Houses collections are made four times weekly, or oftener if required.

(4)—DISPOSAL OF REFUSE.—Since the end of 1907 the disposal of wet refuse by rail has been discontinued, and the whole of the refuse, except fish offal, has been deposited in tips. Selected dry refuse has been used to form service roads in the Northstead allotments, while the main bulk of the refuse has formed high embankments round the extension of the Mere. The mounds so formed have been covered by earth obtained in excavating the new water area, and are being planted with trees and shrubs.

The street sweeping were mixed with the fish refuse at the depots in Scalby and Seamer Roads, the resulting compound finding a ready sale as manure. The total quantity of refuse dealt with during the year was 14,839 loads.

The average number of men employed daily in the work of the Cleansing Department was 92 in winter and 135 in summer. The horses numbered 37, and the vehicles 70.

WATER SUPPLY.

The water supply of Scarborough is derived from the Corallian Rocks, which rest on the Oxford Clay. These strata are tapped by deep wells at Irton and Osgodby, and by adits in the cliff at Cayton Bay. The waters from these sources present similar characters, and are remarkably constant in chemical composition. The Scarborough water is pure and moderately hard, the hardness being largely temporary in character. The growth of fresh water algae during the hotter months in the open reservoir at Osgodby caused considerable inconvenience in past years, as the use of the reservoir had to be discontinued at the very time the demand for water was greatest. By washing down the sides and floor of the reservoir, when empty with a very dilute solution of Copper Sulphate, this difficulty has been overcome.

Following upon the experimental investigations by the Water Engineer and the Medical Officer of Health into the direction of the flow of the underground water, and the relation of the Irton Well to the River Derwent, a trial mechanical filter was temporarily installed and subjected to a series of bacteriological tests. These enquiries were not completed at the end of the year. The Water Engineer has kindly furnished the following particulars of the water consumption during 1909.

Total amount of water pumped	471,858,200 gallons.
Average for preceding 10 years	479,700,000 „
Amount of water consumed	469,262,814 „
For domestic purposes	377,618,814 „
Trade and Water Meters.. ..	80,772,000 „
Street watering, urinals, etc.	10,872,000 „

GENERAL SANITARY WORK.

DAIRIES, COWSHEDS, AND MILKSHOPS.

These premises, numbering in all 124, were kept under regular supervision during the year. The 24 cowsheds were periodically inspected by the Medical Officer of Health and the Inspector of Nuisances, accompanied by the Corporation Veterinary Surgeon, who examined the animals.

The cowsheds were generally found fairly clean, although in two instances verbal notices to limewash and cleanse were required. Greater attention should be paid to the state of the animals, as in only one case does grooming of the cows appear to be systematically carried out. Sufficient importance is not attached to the beneficial effects on the health of the animals of fresh air and light. For cows, as for human beings, a vitiated atmosphere is highly prejudicial to health.

BAKEHOUSES.

There were 56 bakehouses on the register, of which 11 were underground. As a rule the bakehouses are kept in a satisfactory condition, but in 5 instances notices to limewash and cleanse had to be given.

PRIVATE SLAUGHTER HOUSES.

These premises were regularly inspected and their condition found satisfactory. Owing to their proximity to dwelling-houses, the position of several is highly objectionable. Meat inspection cannot be efficiently carried out so long as private slaughter houses exist.

UN SOUND MEAT.

The seizures of unsound meat recorded in the Report of the Inspector of Nuisances were made, as formerly, after a conjoint inspection by the Medical Officer and Veterinary Surgeon.

CONVERSION OF PRIVIES.

During the year a house-to-house inspection of certain areas in the North-West, Central, and West Wards regarding closet accommodation was made by the Medical Officer of Health and the Inspector of Nuisances, who examined altogether upwards of 1,200 houses.

270 notices under the Scarborough Order were issued, compared with 225 in the previous year. Towards the end of the year appeals against notices respecting 19 privies were heard, with the result that the magistrates, while upholding the view of the Corporation, that the existing closet accommodation was not sufficient, nevertheless, decided that half the cost of conversion should be borne by the Corporation. A decision of this kind naturally

brought work under the Scarborough Order to a standstill. With the ostensible object of greatly hastening the conversion of Scarborough into a wholly water-closet town, proposals have been mooted at various times during the past two years that part of the cost of conversion should be defrayed by the Corporation. So far, the only practical effect of these proposals has been to interfere considerably with the voluntary conversion of privies. Whatever solution may be ultimately found for the present impasse there can be no doubt as to the benefit which would accrue to the Borough from the total abolition of conveniences which are alike out of place and of date in a health resort at the present day.

DISPOSAL OF REFUSE.

The Borough refuse continues to be disposed of by tipping. Special dry refuse has been used to make service roads for the Northstead allotments. The main bulk of the refuse has been formed into embankments covered with earth excavated in an extension of the Mere. These embankments are being planted with trees and shrubs. The tipping operations are conducted far away from any dwelling-houses, and no nuisance is caused, but tipping can hardly be looked upon as an ideal method of refuse disposal.

THE REFUSE DESTRUCTOR.

It is highly regrettable to record that the close of another year finds the erection of a refuse destructor as problematical as ever, despite the recent expenditure of time, energy, and money, in acquiring detailed information regarding the latest types of destructor. It is earnestly to be hoped that the information acquired will be utilised practically before it becomes obsolete.

STREET ORDERLY BINS.

The instalment of street orderly bins, laid down during the previous year, has proved its utility in keeping the surface of the principal streets in a clean and more sightly condition. The system could be extended with advantage to other thoroughfares with considerable horse traffic.

THE OPEN WINDOW.

Thousands of visitors flock annually to the Borough, eager to exchange the murky atmosphere of the industrial towns for the pure invigorating air of Scarborough. But it may be seriously questioned if the residents of Scarborough adequately appreciate the advantages they enjoy in this respect. Judged by the comparative infrequency of open windows, especially during the colder months, it would appear that the primary function of a window (as the name implies) the admission of air, had been lost sight of, and that the sole use of windows was the admission of light. It is only fair to state that some of the girls' boarding schools give the inhabitants at large a valuable daily object-lesson regarding the double function which a window subserves. No doubt this common neglect of the cult of the open window is due to an abnormal fear of draughts, but it may be confidentially stated that the

atmosphere of the ordinary dwelling-house cannot be maintained at a proper standard of purity unless one or more windows be kept constantly open. A draught is simply a current of air moving so rapidly as to make its presence disagreeably evident.

Ventilation aims at the adequate renewal of air without perceptible draught, and this can be readily accomplished in the ordinary dwelling-house by judiciously opening windows. Even in the smallest houses all the rooms are not occupied day and night, and the simplest plan of securing proper ventilation is to open the windows of the unoccupied rooms. Thus during the day all the bedroom windows should remain open, or on stormy days, those on the lee side of the house. The force of the entering air is reduced by friction at the angles formed by walls and doors, while the temperature is gradually raised by the indoor warmth. By the time the incoming air reaches the occupied living rooms the draught is no longer perceptible, and a sufficient supply of pure warmed air is secured. It cannot be too strongly stated that there is no surer way of contracting ill-health, increasing susceptibility to colds, and greatly enhancing the risk of consumption, than by habitually living in a vitiated atmosphere. The remedy is simple, and that is probably the reason why it is so widely neglected.

TREE PLANTING IN STREETS.

The planting of trees in streets has not been carried out hitherto on a scale at all worthy of the town as a health resort. There are many streets which would be greatly improved in appearance by a row of trees, and there are but few so exposed to wind as to be unsuitable for this purpose. Trees not only add to the natural beauty of the district, but are valuable agents in purifying the atmosphere. As tree planting in streets already formed is somewhat expensive, care should be taken that all new streets be provided with a strip of grass either side, on which trees should be planted. All waste corners of ground and embankments within the Borough should be similarly treated.

FACTORY AND WORKSHOP ACT, 1901.

By Section 132 of this Act, the Medical Officer of Health has to report upon the administration of the Act, so far as workshops and workplaces are concerned. A copy of the Report has to be sent to the Secretary of State. As Scarborough is not an industrial town, the number of workshops is small. At the end of the year there were 426 workshops on the register, compared with 408 in the previous year. The most numerous class were connected with dressmaking, millinery and tailoring, and numbered 112. Next in importance was joiners and cabinet-makers shops, bakers and workers in metals. The fish curing industry employs a large number of hands for a short time in the summer. Considerable difficulty has been experienced in securing separate closet accommodation for either sex, for those engaged in this trade. The Harbour Commissioners have provided separate accommodation on the piers. The workshops are generally well kept, but in 20 instances defective cleanliness was found. In 16 cases there was deficient ventilation. Notices regarding these defects were served, and complied with.

1.—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories	11	3	..
(Including Factory Laundries)			
Workshops	690	57	..
(Including Workshop Laundries)			
Workplaces	154	19	..
(Other than Outworkers' premises included in Part 3 of this Report)			
Total.....	855	79	..

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—</i>				
Want of cleanliness	20	20	..	..
Want of ventilation	16	16	..	..
Overcrowding .....	..	..	..	..
Want of Drainage of floors.. ..	1	1	..	..
Other Nuisances	13	13	..	..
Sanitary Accommodation {	insufficient	8	..	..
	unsuitable or defective	14	7	..
	not separate for sexes	2	1	..
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (s. 101) ....	..	..	..	..
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	5	5	..	..
Other Offences .....	..	..	..	..
(excluding offences relating to outwork which are included in Part 3 of this Report)				
Total.....	79	63	..	..

3.—HOME WORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.										OUTWORK IN UNWHOLE SOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTION 109, 110.				
	Lists received from Employers.					Addresses of Outworkers.		Notices served on Occupiers as to keeping or sending lists.	Prosecutions.		Number of Inspections of Outworkers' premises.	OUTWORK IN UNWHOLE SOME PREMISES, SECTION 108.		Instances.	Orders made (S. 110.)	Prosecu- tions. (Sections 109, 110.)		
	Twice in the year.		Once in the year.			Received from other Councils.	Forwarded to other Councils.		Failing to keep or permit inspection of lists.	Failing to send lists.		Instances.	Notices served.					
	Lists	Outworkers.	Con- tractors.	Work- men.	Lists			Outworkers.									Con- tractors.	Work- men.
Wearing Apparel—																		
(1) making, &c.	20	10	53	5	5	5	13	8	..	..	66	..	..	..	..	..
(2) cleaning and washing		
Lace, lace curtains, and nets		
Artificial flowers		
Nets, other than wire nets		
Tents		
Sacks		
Furniture and upholstery	4	2	21	..	..	..	..	..	..	..	21	..	..	..	..	..
Fur pulling		
Feather sorting		
Umbrellas, &c.		
Carding, &c., of buttons, &c.		
Paper bags and boxes		
Basket making		
Brush making		
Racquet and tennis balls		
Stuffed toys		
File making		
Electro-plate		
Cables and chains		
Anchors and grapnels		
Cart gear		
Locks, latches and keys		
Pea picking		
Total	24	12	74	5	5	5	13	8	..	..	87	..	..	..	..	..

4.—REGISTERED WORKSHOPS.

Workshops on the Register (sec. 131) at the end of the year.							Number.
Important classes of workshops, such as workshop bakehouses, may be enumerated here.	{	Bakehouses	..	..	..	..	56
		Tailors, Dressmakers, Milliners, &c...	..	..	..	..	112
		Joiners and Cabinet Makers	..	..	..	..	73
		Laundries	..	..	..	..	19
		Boots, Shoes, and other Workers in Leather	..	..	..	..	38
		Workers in Tin, Iron, and Lead	..	..	..	..	59
		Fish Curing Houses and Offensive Trades	..	..	..	..	36
		Miscellaneous	..	..	..	..	33
Total number of workshops on Register .							426

5—OTHER MATTERS.

Class.							Number.
Matters notified to H.M. Inspector of Factories:—							
Failure to affix Abstract of the Factory and Workshop Act (s. 133)							20
Action taken in matters referred by H.M. Inspector as remedial under the Public Health Acts, but not under the Factory and Workshop Act (sec. 5)							14
Other:—							8
Referred to Borough Surveyor under Section 22, Public Health Act Amendment Act, 1890							6
Underground Bakehouses (sec. 101):—							
Certificates granted during the year							..
In use at the end of the year							11

TABLE I.—VITAL STATISTICS OF WHOLE DISTRICT DURING 1909 AND PREVIOUS YEARS.

YEAR.	Population estimated to middle of each year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				Total Deaths in Public Institutions in the District.	Deaths of Non- Residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.	
		Number.	Rate.	Under 1 Year of Age		At all Ages.					Number.	Rate.
				Number	Rate per 1000 Births registered.	Number.	Rate.					
1899	37,354	950	25.7	157	163.6	724	19.4	87	41	..	683	18.3
1900	37,812	958	25.3	141	147.2	684	18.1	75	20	..	664	17.6
1901	38,277	902	23.6	137	151.9	647	16.9	79	15	..	632	16.5
1902	38,746	884	22.8	112	126.7	620	16.1	83	6	..	620	16.0
1903	39,220	879	22.4	109	124.0	592	15.09	60	18	2	576	14.68
1904	39,700	901	22.6	120	133.1	587	14.78	72	3	4	583	14.68
1905	40,180	837	20.83	83	99.1	556	13.83	79	13	6	549	13.66
1906	40,670	774	19.03	105	135.6	627	15.4	90	15	2	616	15.1
1907	41,160	772	18.7	88	113.0	719	17.4	113	17	3	703	17.0
1908	41,250	731	17.7	67	91.6	536	12.9	68	8	6	534	12.9
Averages for years 1899-1908.	39,437	859	21.7	112	130	630	15.9	81	16	..	616	15.6
1909	41,480	783	18.8	56	71.5	549	13.2	100	18	5	536	12.9

TABLE II.—VITAL STATISTICS OF SEPARATE LOCALITIES IN 1909 AND PREVIOUS YEARS.

NAMES OF LOCALITIES.	Whole Town.				North-West Ward.				North Ward.				Central Ward.				East Ward.				West Ward.				South Ward.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
YEAR.																												
1899.....	37354	959	683	151	9250	281	191	43	5010	123	101	24	6453	123	131	28	6120	221	130	31	5485	163	79	24	5036	48	51	1
1900.....	37812	958	664	140	9516	271	166	32	5030	146	102	25	6485	120	146	30	6035	197	110	33	5570	184	104	17	5176	40	36	3
1901.....	38277	902	632	131	9790	260	160	31	5050	130	112	21	6516	112	110	21	5960	195	95	31	5655	171	97	23	5316	34	58	4
1902.....	38746	884	620	103	9920	250	185	28	5166	112	90	10	6460	112	106	12	5990	186	97	23	5760	178	89	23	5450	46	53	7
1903.....	39220	879	576	109	9980	251	159	25	5360	117	94	22	6470	126	95	13	5980	196	102	28	5880	163	84	18	5550	26	42	3
1904.....	39700	901	583	120	10000	270	140	26	5570	163	91	16	6470	104	125	32	5990	148	71	19	6000	167	99	23	5670	43	57	4
1905.....	40180	837	549	84	10034	245	152	17	5973	123	76	7	6450	106	120	18	5972	184	89	19	6018	145	84	17	5733	34	46	6
1906.....	40670	774	616	105	10052	204	158	20	6219	126	124	22	6464	110	87	17	5982	160	115	32	6176	147	74	13	5777	27	58	1
1907.....	41160	772	703	88	10105	209	156	14	6437	155	137	25	6466	98	100	6	5986	151	151	30	6348	136	95	8	5818	23	66	5
1908.....	41250	731	534	67	10165	192	112	10	6458	140	111	13	6469	89	82	16	5986	148	83	21	6389	130	81	7	5783	32	65	...
Averages of Years 1899 to 1908	39437	860	616	110	9881	243	158	25	5627	134	104	19	6470	110	108	19	6000	179	104	27	5928	158	90	17	5530	35	53	3
1909.....	41480	783	536	56	10256	220	132	17	6554	139	100	7	6469	93	67	7	5986	160	83	14	6427	138	98	9	5788	33	56	2

TABLE III.—CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1909.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY. (WARDS.)							No. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY. (WARDS.)							
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	(W.) N.W.	N.	C.	E.	W.	S.	Town.	(W.) N.W.	N.	C.	E.	W.	S.	Town.	Total cases removed to Hospital.
Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	16	..	4	8	2	2	..	6	4	..	..	..	1	16	4	2	..	..	..	4	..	..
Erysipelas ..	15	..	1	1	2	9	2	3	3	2	4	2	1	15	..	..	..	..	..	..	..	10
Scarlet Fever..	226	2	39	153	17	15	..	74	43	39	28	35	7	226	59	40	29	23	28	3	..	182
Typhus Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric fever ..	3	..	1	1	..	1	..	1	..	1	..	..	1	3	1	..	1	..	..	..	..	2
Relapsing Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ..	1	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..
Plague ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis (Voluntary)..	5	..	..	1	1	3	..	1	..	3	..	1	..	5	..	..	..	..	..	..	..	..
Tuberculosis Regulations (1908)	21	..	..	..	3	17	1	13	2	3	2	1	..	21	..	..	..	..	..	..	..	..
Totals..	287	2	45	164	25	48	3	98	53	48	34	44	10	287	64	42	30	23	32	3	..	194

TABLE IV.—CAUSES OF, AND AGES AT, DEATH DURING YEAR 1909.

CAUSES OF DEATH.	DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING IN OR BEYOND THE DISTRICT.							DEATHS AT ALL AGES OF "RESIDENTS" BELONGING TO LOCALITIES, WHETHER OCCURRING IN OR BEYOND THE DISTRICT.							TOTAL DEATHS WHETHER OF "RESIDENTS" OR "NON- RESIDENTS" IN PUBLIC INSTITUTIONS IN THE DISTRICT.
	All Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	N.W.	N.	C.	E.	W.	S.	Town.	
Small-pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	4	1	1	1	..	1	..	..	2	..	1	1	..	4	..
Whooping Cough .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	2	..	1	1	..	..	..	2	..	..	..	..	..	2	..
Croup .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fever { Typhus .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other continued .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	4	..	..	..	..	2	2	..	..	..	1	1	2	4	..
Cholera .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea	1	..	1	..	..	..	..	..	..	..	..	1	..	1	1
Enteritis	7	5	1	..	..	..	1	4	..	..	1	1	1	7	1
Gastritis	5	3	..	..	..	..	2	..	2	1	..	1	1	5	..
Puerperal Fever	1	..	..	..	..	1	..	..	1	..	..	..	..	1	..
Erysipelas .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis (Pulmonary Tuber- culosis)	36	..	1	2	12	20	1	8	8	6	4	8	2	36	4
Other Tuberculous Diseases	8	2	2	2	2	..	..	3	2	1	1	1	..	8	1
Cancer. Malignant Disease	63	..	..	..	..	27	36	16	9	7	9	12	10	63	4
Bronchitis	26	1	..	..	..	3	22	6	6	3	8	3	..	26	2
Pneumonia	32	5	2	..	..	10	15	5	7	7	6	4	3	32	4
Pleurisy	4	..	..	..	..	2	2	1	..	1	..	1	1	4	..
Other Diseases of Respira- tory Organs	7	..	1	..	1	2	3	3	1	..	1	2	..	7	1
Alcoholism	11	..	..	..	..	8	3	3	1	..	1	2	4	11	..
Cirrhosis of Liver .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Venereal Diseases	1	1	..	..	..	..	..	1	..	..	..	..	..	1	1
Premature Birth	15	15	..	..	..	..	..	4	2	3	2	4	..	15	..
Diseases and Accidents of Parturition	3	2	..	..	..	1	..	1	..	..	..	2	..	3	..
Heart Diseases	86	..	..	..	..	29	57	19	22	13	10	13	9	86	14
Accidents	12	..	2	..	..	5	5	1	2	3	1	5	..	12	8
Suicides	1	..	..	..	..	1	..	..	1	..	..	..	..	1	..
Cerebral Hæmorrhage	22	..	..	..	..	7	15	8	2	3	2	5	2	22	1
Apoplexy	15	..	..	..	..	4	11	4	5	1	2	1	2	15	3
Hemiplegia	3	..	..	..	..	1	2	1	..	..	2	..	..	3	..
Acute and Chronic Nephritis	13	..	..	..	1	7	5	2	3	1	2	4	1	13	2
Old Age	14	..	..	..	..	..	14	4	5	..	1	4	..	14	3
All other Causes	140	21	10	7	5	41	56	36	19	17	28	22	18	140	32
All Causes	536	56	22	13	21	172	252	132	100	67	83	98	56	536	82

TABLE V.—INFANTILE MORTALITY DURING THE YEAR 1909.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All causes	Certified ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Uncertified ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Common Infectious Diseases.	Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox ..	..	..	..	..	..	..	..	..	..	I	..	..	..	..	..	..	I
	Measles ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Scarlet Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	..	..	I
	Diphtheria (including Membranous Croup) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Whooping Cough ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoeal Diseases.	Diarrhoea, all forms ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Enteritis, Muco-Enteritis, Gastro-Enteritis ..	..	..	..	..	..	3	..	I	..	..	I	..	..	..	..	..	5
	Gastritis, Gastro-intestinal Catarrh ..	..	I	..	..	I	..	..	I	I	..	..	..	..	..	..	..	3
	Wasting Diseases.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wasting Diseases.	Premature Birth ..	11	2	I	..	14	..	..	..	I	..	..	..	..	..	..	..	15
	Congenital Defects ..	3	I	I	..	5	..	2	..	I	I	..	..	I	..	..	..	10
	Injury at Birth ..	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2
	Want of Breast Milk, Starvation ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Atrophy, Debility, Marasmus ..	..	..	..	I	I	..	I	..	..	..	..	..	..	..	..	..	2
Tuberculous Diseases.	Tuberculous Meningitis ..	..	..	..	..	..	..	..	..	..	..	I	..	..	..	..	..	I
	Tuberculous Peritonitis: Tabes Mesenterica ..	..	..	..	..	..	..	..	..	..	..	..	..	I	..	..	..	I
	Other Tuberculous Diseases ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Erysipelas ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Causes.	Syphilis ..	..	..	..	I	I	..	..	..	..	..	..	..	..	..	..	..	I
	Rickets ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Meningitis (not Tuberculous) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Convulsions ..	..	..	..	..	..	..	..	I	..	..	..	..	..	..	..	..	I
	Bronchitis ..	..	..	..	..	..	..	..	..	..	..	..	..	I	..	..	..	I
	Laryngitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Pneumonia ..	..	..	..	..	..	I	2	..	..	..	..	..	I	..	I	..	5
	Suffocation, overlying ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Causes ..	..	..	..	I	I	..	3	..	I	I	I	..	..	..	..	..	7
	Total ..	16	4	2	3	25	4	8	3	4	3	3	..	4	I	I	..	56

District (or sub-division of) Scarborough.

Population (estimated to middle of 1909), 41,480.

Births in the year } legitimate, 699.
 } illegitimate, 84.

Deaths in the year of } legitimate infants, 45 }
 } illegitimate infants, 11 } 56.

Deaths from all Causes at all Ages, 536.

METEOROLOGICAL REPORT.

Mr. W. W. Larkin, Borough Meteorologist, has kindly furnished the following report on the weather during 1909 :—

Scarborough—Latitude, $54^{\circ} 17' 30''$; Longitude, $0^{\circ} 24' 28''$ west. The Scarborough Observatory is a station of the Royal Meteorological Society. The observations are taken daily at 9 a.m. and 8 p.m. with instruments which have all been verified at Kew Observatory, and at each observation corrections are made for instrumental errors.

The height of the Barometer Cistern above Mean Sea Level is 126.86 feet.

Barometric readings are reduced to 32° Fahrenheit and to Mean Sea Level.

The Rain Gauge is five inches in diameter and one foot above the ground. Its rim is 101 feet above Mean Sea Level. The rainfall is carefully measured to $\frac{1}{100}$ inch.

The Sunshine is estimated by a Campbell-Stokes recorder, the type of instrument recognised by the Royal Meteorological Society. To be recorded, the sunshine must be sufficiently intense to burn the card of the recorder.

The force of the wind is estimated in accordance with Beaufort's Scale:—from 0° (calm) to 12° (hurricane).

The Earth Thermometer, which is three feet below the surface of the ground, is read daily at 9 a.m.

BOROUGH OF SCARBOROUGH.
WEATHER REPORT FOR THE YEAR 1909.

Month.	Average Height of Barometer in Inches.	Average Temperature of the Air.	Average Temperature Wet Bulb.	Average Dew Point.	Average Humidity of the Atmosphere.	Elastic Force of the Atmosphere.	Average Maximum in Screen.	Average Minimum in Screen.	Average Earth Ther- mometer 3 feet.	Average Height of Black Bulb.	Average Height of Bright Bulb.	Average Force of the Wind.	Average Amount of Clouds.	Total Amount of Sunshine.	Total Amount of Rain in Inches.
	A.M.	A.E.	A.M.	A.M.	A.M.	A.M.	A.M.	A.M.	A.M.	P.M.	P.M.	A.M.	A.M.	HRS. MIN.	
January	30.041	37.2	35.7	33.1	85	.194	42.8	33.5	42.1	59	47	3.3	7.1	59 46	.51
February	30.090	38.6	36.5	33.9	84	.197	44.2	34.5	39.9	65	54	3.6	7.7	69 12	1.06
March	29.508	39.4	37.8	35.8	88	.215	44.6	33.9	39.6	72	54	3.4	8.2	71 6	3.87
April	29.914	49.1	45.4	41.0	74	.260	56.5	40.3	44.4	102	72	3.1	5.6	203 14	1.91
May	30.088	53.1	48.8	44.5	73	.301	57.8	43.3	48.9	109	77	3.0	5.0	234 36	1.36
June	29.960	53.5	50.9	48.0	81	.334	58.9	47.8	53.9	105	76	3.4	8.2	123 0	2.31
July	29.813	58.9	55.0	51.5	77	.383	65.8	51.9	56.6	114	83	3.9	7.9	149 12	2.74
August	29.948	60.9	57.1	54.3	79	.421	67.5	53.6	59.6	116	83	3.1	6.9	172 44	4.02
September	30.014	54.7	52.2	49.3	83	.355	59.7	48.9	57.1	96	72	3.3	8.7	76 34	1.87
October	29.707	52.2	49.3	47.6	81	.323	57.8	46.3	54.1	87	67	3.9	7.0	94 48	2.61
November	29.966	43.8	41.3	38.4	81	.237	49.4	39.3	47.9	66	52	3.6	7.4	49 18	1.39
December	29.584	39.3	37.6	35.1	85	.209	43.9	34.7	42.7	53	47	4.0	8.4	31 18	4.13
Mean for the Year	29.886	48.4	45.6	42.7	91	.285	53.9	42.3	48.9	87	74	3.5	7.3	HRS. MIN. 1334 48	Total. 27.78
Average 1901-8	29.905	48.3	45.8	43.1	83	.291	..	...	48.4	89	68	3.5	7.2	HRS. MIN. 1429 18	22.72

The Highest Reading of the Barometer was 30.645, on January 4th. The Lowest Reading of the Barometer was 28.128, on December 3rd. The Highest Reading of the Maximum Thermometer was 71°, on September 3rd. The Lowest Reading of the Minimum Thermometer was 25°, on December 21st. Rain fell on 198 days.

W. W. LARKIN, F.R. MET. S.,

Borough Meteorologist.

REPORT OF THE INSPECTOR OF NUISANCES.

MR. JAMES BASTIMAN, ASSOC. ROYAL SAN. INST.

To the Medical Officer of Health.

SIR,

I beg to submit my Twenty-Sixth Annual Report, describing in detail the work of the Inspector of Nuisances during 1909.

A systematic inspection of Yards, Courts, Passages, Bolts, Staithes and Quays, etc. within the Borough has been made, and every means taken to improve their sanitary condition.

NUISANCES.

During the year, 1327 notices were served for the abatement of nuisances, against 1192 in 1908. Of this number 581 were preliminary, and 746 legal. The latter included 270 notices to provide suitable and sufficient water closet accommodation to dwelling-houses, under the Scarborough Order, 1897.

With regard to Sanitary Conveniences for both sexes in Workshops, proceedings were taken under the Public Health Amendment Act, which is in force in the Borough.

In only two instances had legal proceedings to be taken for the abatement of nuisances, persuasion accomplishing the desired end in all the other cases.

There were 322 complaints of nuisance received, as compared with 386 in 1908.

The following Table shows the annual number of notices served to abate nuisances during the 10 years, 1900-1909.

Year.	Number of Notices.		
1900	1103
1901	1233
1902	1607
1903	1145
1904	1169
1905	1077
1906	1010
1907	1135
1908	1192
1909	1327

The number and nature of the various forms of nuisance dealt with are detailed in the following Table.

TABLE II.

Nature of Nuisance.	No.	Still on Books.	
		Preliminary.	Legal.
Choked Drains	109	...	...
Defective Drains	73	1	1
" Water Closets	15	...	...
" Flushing apparatus to W.C.'s	6	...	...
" Soil pipes to W.C.'s	3	...	...
" Ventilation of W.C. soil pipes	1	...	...
" Slopstone and other wastes	13	...	1
" House floors	2	...	...
" House roofs	9	...	...
" Eave spouts and fall-spouts	59	2	3
" Privies	58	...	1
" Ashpits	19	...	1
" Yard pavements	123	10	10
" Passage pavements	92	1	7
" Manure pits	1	...	...
Inadequate ventilation of W.C. soil pipes	3	...	...
Want of sufficient closet accommodation to dwelling-houses	270	...	123
" sufficient ashpits	294	...	261
" drainage in yard	1	...	...
" " passage	58	...	...
" proper manure pit	13	...	...
Accumulations of manure	31	...	...
Damp house	1	...	...
Dirty dwelling-houses	7	...	...
" water closets	3	...	...
" privies	11	...	...
Workshops, want of light and ventilation	6	...	1
" defective water closets	2	...	...
" want of flushing apparatus to W.C.	1	...	...
" water closets without screened approach	11	8	...
" dirty water closets	6	...	...
" dirty	3	...	...
Want of ventilation to gas heater	4	...	...
Workplace, dirty W.C.	1	...	...
Bakehouses, dirty	5	...	...
Cowsheds, defective drainage and overcrowded	1	...	...
" " " want of light and ventilation	4	...	2
Smoke nuisance	1	...	...
Premises in such a state as to be a nuisance	7	...	...
Total	1327	22	411

A special inspection of ashpit accommodation was made, with the result that 294 notices were served.

Want of sufficient closet accommodation to dwelling-houses, 270 notices were served.

Defective paving of yards, passages and courts formed the next highest in numbers and accounted for 215 notices being served.

Choked drains were more numerous than in the previous year, 109 notices being served, compared with 80.

Defective drains gave rise to nuisances for which 73 notices were served, compared with 93 in the previous year.

Defective privies, which cause nuisance of the most objectionable kind, were much less numerous than in the previous year, 58 notices being served, compared with 119 in 1908.

COMMON LODGING HOUSES.

The number of Common Lodging Houses on the Register is nine, the same as in the previous year. Two applications to be registered as keepers of common lodging houses were approved, the houses concerned having changed hands.

It is gratifying to record for the fourth year in succession no cases of infectious disease occurred in the Common Lodging Houses.

The houses have been well conducted, and there has been no breach of the Bye-Laws regulating them.

The number of occupants of either sex at the Common Lodging Houses in each week of the year is shown in the following Table.

Week Ending.			Males.	Females.	Total.	Children under 10 years.	
1909.							
January	2...	...	1017	119	1136	...	
"	9...	...	940	102	1042	3	
"	16...	...	981	107	1088	3	
"	23...	...	983	98	1081	...	
"	30...	...	1031	115	1146	7	
					5493	—	13
February	6...	...	1034	107	1141	...	
"	13...	...	1040	124	1164	4	
"	20...	...	1007	90	1097	7	
"	27...	...	980	104	1084	4	
					4486	—	15
March	6...	...	1025	99	1124	...	
"	13 ..	...	1028	109	1137	7	
"	20...	...	991	107	1098	...	
"	27...	...	1059	101	1160	...	
					4519	—	7
April	3...	...	1053	123	1176	...	
"	10...	...	1117	111	1228	10	
"	17...	...	1204	120	1324	7	
"	24...	...	1185	132	1317	21	
					5045	—	38
May	1...	...	1194	84	1278	...	
"	8...	...	1254	133	1387	4	
"	15...	...	1278	121	1399	3	
"	22...	...	1298	117	1415	...	
"	29...	...	1315	117	1432	...	
					6911	—	7
June	5..	...	1376	126	1502	...	
"	12...	...	1332	144	1476	3	
"	19...	...	1443	142	1585	...	
"	26...	...	1555	128	1683	...	
					6246	—	3
July	3...	...	1573	142	1715	...	
"	10...	...	1640	128	1768	...	
"	17...	...	1668	118	1786	...	
"	24...	...	1739	137	1876	14	
"	31...	...	1699	146	1845	25	
					8990	—	39
August	7...	...	1717	148	1865	14	
"	14...	...	1853	139	1992	21	
"	21...	...	1957	135	2092	14	
"	28...	...	1851	174	2025	27	
					7974	—	76
September	4...	...	1850	161	2011	25	
"	11 ..	...	1664	155	1819	28	
"	18...	...	1509	119	1628	35	
"	25...	...	1210	141	1351	36	
					6809	—	124
October	2...	...	1185	95	1280	35	
"	9...	...	1016	62	1078	18	
"	16...	...	969	56	1025	18	
"	23...	...	949	70	1019	21	
"	30...	...	930	86	1016	21	
					5418	—	113
November	6...	...	951	98	1049	11	
"	13...	...	998	105	1103	7	
"	20...	...	980	100	1080	...	
"	27...	...	1007	96	1103	...	
					4335	—	18
December	4...	...	972	117	1089	...	
"	11...	...	1013	103	1116	...	
"	18...	...	1044	96	1140	...	
"	25...	...	1245	112	1357	...	
"	31...	...	1056	109	1165	...	
					5967	—	...
Total	...	...	65965	6128	72093	—	453

It is interesting to note how markedly the number of inmates of the Common Lodging Houses varies with the seasons of the year. The following are the weekly averages per calendar month :—

January, 1098.	April, 1261.	July, 1798.	October, 1083.
February, 1121.	May, 1382.	August, 1993.	November, 1083.
March, 1129.	June, 1561.	September, 1702.	December, 1173.

It will be observed that the numbers vary but little from January to April inclusive. With each succeeding month after the latter date, they mount rapidly up to the maximum in August, and are still high during September. From the close of this month there is a sharp drop, and the numbers practically at once assume the winter level.

This marked seasonal variation in number shows how largely the migratory class are attracted to the Borough in the hope of employment during the season.

The number of children under 10 years of age, while stated separately, is also included in the total of Males and Females. The annual number of occupants has increased from 70,563 to 72,093, an average of 197 per night.

Table four shows the annual number of occupants of Common Lodging Houses during the past 10 years.

TABLE IV.

Year.	Males.	Females.	Total.	Children under 10 years.
1900	53702	7025	60727	1445
1901	56677	6101	62778	1078
1902	55937	4775	60712	1017
1903	56863	5072	61935	452
1904	64979	5966	70945	530
1905	58856	6017	64873	740
1906	63691	6242	69933	626
1907	60764	6152	66916	489
1908	63992	6571	70563	415
1909	65965	6128	72093	453

UNSOUND FOOD.

There were 25 seizures of unsound food, compared with 42 in 1908. These comprised 3,445 lbs. of beef, 7 lbs. of lamb, 132 lbs. of pork, 84 lbs. of fruit, and 4,928 lbs. of vegetables.

The articles seized were destroyed on a Magistrate's Order in 11 instances, and in the remainder by the consent of the owner.

The following Table shows a comparison of unsound food destroyed from 1900-1909.

Year.	No. of Seizures.	Beef. lbs.	Mutton. lbs.	Lamb. lbs.	Pork. lbs.	Veal. lbs.	Sausage.	Rabbits.	Fish.	Fruit.	Poultry.	Vegetables.	Condensed Milk.	Penalties imposed. £ s. d.
1900...	45	6361	...	...	1558	...	13	23	...	21	...	...	...	9 1 6
1901...	24	3382	9	...	12	...	...	...	8400 Herrings 3948	858	...	...	...	...
1902...	33	5917	10	32	567	...	...	...	70 lbs.	7	...	...	...	...
1903...	46	4626	140	...	274	...	...	...	1800 Herrings 2240 lbs.	422	...	Tons 1½ Carrots. 84 lbs.	...	...
1904...	26	2036	103	...	222	126	...	...	...	543	...	...	...	...
1905...	36	6538	140	...	324	...	...	...	...	132	40	...	...	2 0 0
1906...	35	7285	52	...	309	...	...	...	280	2273	...	...	...	...
1907...	35	4817	237	...	13	...	...	...	38	10	...	...	...	...
1908...	42	212	46	...	351	...	...	...	1148	1196	...	392	504	...
1909...	25	3445	...	7	132	...	...	...	...	84	...	4928	...	...

OFFENSIVE TRADES.

These trades comprise 1 bone-boiler, 2 tallow-melters, 4 tripe-boilers and 1 gut scraper. The first named has not been carried on during the year. One person has been registered during the year to carry on the business of a tripe-boiler.

FISH MARKET.

The fish market has been regularly inspected, and every means taken to secure cleanliness, and the prompt removal of garbage and other refuse.

FACTORY AND WORKSHOP ACT, 1901.

Eight hundred and twelve inspections were made, compared with 1,066 in the previous year.

Special attention was given to fish-curing houses during the herring season as in former years, and I am pleased to note that very few complaints were made regarding them.

The following defects were found on inspection:—

Want of separate w.c. accommodation for both sexes	..	1	Reported to Surveyor.
Water closet inaccessible	.. .. .	1	Notice Served.
Defective drain	.. .. .	1	„
Unpaved surfaces of yards	.. .. .	3	„
Want of screens between w.c.'s & workshops, & ventilation		6	„
Dirty premises	.. .. .	5	„
Defective ventilation, Breach of Order, 1903	.. .. .	2	„
No Abstracts affixed..	.. .. .	3	Reported to H.M. Inspector

Six complaints were received from H.M. Inspector of Factories regarding the want of screens and ventilated spaces between the workshop and Sanitary Conveniences.

In these cases notices were served upon the owners to provide the necessary screens and ventilation, etc., but as the herring season had terminated, and the premises closed, the owners gave an understanding to carry out the necessary work before occupation next year.

FISH CURING HOUSES AND PACKING PLACES.

There are 28 of these houses in use during the herring season. Of this number 10 were fish packing places, and situated chiefly on the Piers and Sandside adjoining the harbour.

DAIRIES, COWSHEDS, AND MILKSHOPS.

One hundred and fifty-one Inspections of Dairies and Milkshops were made during the year. 39 dairies and milkshops were discontinued, and 12 new ones opened, making in all 124 on the register.

In 8 instances milk was found stored uncovered in small grocers and general dealers' shops. In these cases recommendations were made to keep the milk-vessels covered so as to minimise the risk of contamination.

Two cases of Scarlet Fever occurred on premises registered for the sale of milk, and were removed forthwith to the Sanatorium.

ICE-CREAM SHOPS.

Sixty-one Inspections were made to premises on which Ice Creams were made. The conditions were found satisfactory.

At the beginning of the year 24 cowsheds were on the register, but of these one was subsequently discontinued. Seventy-two Inspections were made, and the following breaches of the Bye-laws were found:—

Defective drainage	..	..	..	..	3
Want of ventilation	..	..	..	..	2
Defective pavement	..	..	..	..	2
					—
					7
					—

Verbal notices to limewash and cleanse the premises were given in several instances.

INFECTIOUS DISEASE AND DISINFECTION.

CASES REMOVED TO THE SANATORIUM.

194

Rooms disinfected	..	..	..	..	..	449
Beds	..	..	..	..	..	164
Mattresses	..	..	..	..	..	76
Pillows and Bolsters	..	..	..	..	..	636
Blankets	..	..	..	..	..	538
Sheets	..	..	..	..	..	378
Counterpanes	..	..	..	..	..	192
Rugs and Quilts	..	..	..	..	..	128
Carpets and Curtains	..	..	..	..	..	78
Towels	..	..	..	..	..	148
Eiderdowns	..	..	..	..	..	52
Personal Clothing	..	..	..	..	..	1371
Sundries	..	..	..	..	..	696
Total						4902

SALE OF FOOD AND DRUGS ACT, 1875-1899.

During the year 92 samples of Food and Drugs were submitted for analysis, compared with 71 in 1908.

Owing to the post of Public Analyst having become vacant, no samples were taken in the latter part of 1908, or the first quarter of 1909.

Of the 92 samples, 25, or 27·4% were certified to be adulterated.

As the following Table shows, this is the highest percentage of adulteration recorded in recent years.

Year.	No. of Samples taken.	Genuine.	Adulterated.	Percentage.	No. of Fines inflicted.
					£ s. d.
1900.....	30	30	...	...	...
1901.....	26	26	...	...	...
1902.....	150	131	19	12·6 %	17 12 6
1903.....	120	114	15	15·12 %	5 1 0
1904.....	120	106	14	8·5 %	23 8 0
1905.....	93	75	15	16·12 %	11 0 0
1906.....	95	77	18	18·90 %	8 10 6
1907.....	97	93	4	11·33 %	7 6 6
1908.....	71	64	7	9·8 %	1 case dismissed 2 cases withdrawn
1909.....	92	66	25	27·4 %	7 6 6

FIRST QUARTER—Nil.

SECOND QUARTER.

Nature of Article.	No. of Samples taken.	Genuine.	Adulterated.	Result of Analysis specified in Analyst's Certificates.	Observations.	Result of Proceedings taken before the Justices.		
				Adulterated.				
Milk	13	7	6	Solids not Fat ... 8.72	It is therefore a sample of genuine milk.	Case dismissed. Defendant given the benefit of the doubt as to who carried on the business, himself or daughter. Defendant denied liability, and he said that he had turned the business over to his daughter.		
				Fat 3.28				
				Water 88.00				
				100.00				
				Solids not Fat ... 8.69	It is therefore a sample of genuine milk.			
				Fat 3.31				
				Water 88.00				
				100.00				
				Solids not Fat ... 8.84	It is therefore a sample of genuine milk.			
				Fat 3.71				
				Water 87.45				
				100.00				
				Solids not Fat ... 6.73	No change had taken place in the constitution of the sample that would interfere with the analysis.			
				Fat... .. 2.05				
				Water 91.22				
				100.000				
				Having regard to the Sale of Milk Regulations, 1901, the sample is adulterated with 20.22 per cent. of added water. It is also deficient in Milk Fat to the extent of 31.67 per cent.				
				Solids not Fat ... 7.56	No change had taken place in the constitution of the sample that would interfere with the analysis.		Fined £1 and 17s. 6d. costs.	
				Fat 3.29				
				Water 89.15				
				100.00				
				Having regard to the Sale of Milk Regulations, 1901, it is adulterated with 11.06 per cent. of added water.				
				Solids not Fat ... 8.97	it is therefore a sample of genuine milk.			
				Fat 3.15				
				Water 87.88				
				100.00				

SECOND QUARTER—*Continued.*

Nature of Article.	No. of Samples taken.	Genuine.	Adulterated.	Result of Analysis specified in Analyst's Certificates.	Observations.	Result of Proceedings taken before the Justices.
				Adulterated.		
				Solids not Fat ... 8.08 Fat 2.88 Water 89.04 <hr/> 100.00 <hr/> <p>Having regard to the Sale of Milk Regulations, 1901, it is adulterated with 4.9 per cent. of added water. It also deficient in Milk Fat to the extent of 4 per cent.</p>	No change had taken place in the constitution of the sample that would interfere with the analysis. N.B.—Sample taken on delivery on the request of Vendor of the above.	None.
				Solids not Fat ... 8.79 Fat 3.04 Water 88.17 <hr/> 100.00 <hr/>	It is therefore a sample of genuine milk.	
				Solids not Fat ... 8.18 Fat 3.47 Water 87.35 <hr/> 100.00 <hr/>	It is therefore a sample of genuine milk.	
				Solids not Fat ... 7.66 Fat 2.58 Water 89.76 <hr/> 100.00 <hr/> <p>Having regard to the Sale of Milk Regulations, 1901, it is adulterated with 9.9 per cent. of added water. It is also deficient in Milk Fat to the extent of 14 per cent.</p>	No change had taken place in the constitution of the sample that would interfere with the analysis.	Fined £1 and 17s. 6d. costs.
				Solids not Fat ... 8.42 Fat 2.83 Water 88.75 <hr/> 100.00 <hr/> <p>Having regard to the Sale of Milk Regulations, 1901, it is adulterated with 1 per cent. of added water. It is also deficient in Milk Fat to the extent of 5.7 per cent.</p>	None	

SECOND QUARTER—Continued.

Nature of Article.	No. of Samples taken.	Genuine.	Adulterated.	Result of Analysis specified in Analyst's Certificates.		Observations.	Result of Proceedings taken before the Justices.	
				Adulterated.				
Butter	6	6	0	Solids not Fat	... 8.56	It is therefore a sample of genuine milk.	None.	Case withdrawn Warranty put in.
				Fat	... 3.06			
				Water	... 88.38			
					100.00			
				Solids, not Fat	.. 8.91			
				Fat	... 2.79			
				Water	... 88.30			
					100.00			
				Having regard to the Sale of Milk Regulations, 1901, it is deficient in Milk Fat to the extent of 7 per cent.				
				Water	... 12.20			
				Curd	... 1.48			
				Salt	... 2.12			
Fat	... 84.20	It is therefore a sample of genuine butter.						
	100.00							
Water	... 15.48		It is therefore a sample of genuine butter.					
Curd	... 1.85							
Salt	... .84						
Fat	... 81.83							
	100.00	A small amount of artificial colouring is present. This has probably been added to render the butter more saleable.						
Water	... 12.9							
Curd	... 3.9							
Salt	... .8						
Fat	... 82.4	It is therefore a sample of genuine butter.						
	100.00							
Water	... 13.08							
Curd	... 2.07							
Salt	... 2.66	It is therefore a sample of genuine butter.						
Fat	... 82.19							
	100.00							
Water	... 13.47							
Curd	... 3.99	It is therefore a sample of genuine butter.						
Salt	... 1.20							
Fat	... 81.34							
	100.00							
Water	... 13.53	It is therefore a sample of genuine butter.						
Curd	... 5.47							
Salt	... 1.09							
Fat	... 79.91							
	100.00							
Total	19	13	6					

THIRD QUARTER.

Nature of Article.	No. of Samples taken.	Genuine.	Adulterated.	Result of Analysis specified in Analyst's Certificates.	Observations.	Result of Proceedings taken before the Justices.
				Adulterated.		
Milk	9	3	6	Solids not Fat ... 8.52 Fat 3.20 Water 88.28 ----- 100.00 ----- Solids not Fat ... 8.39 Fat 3.51 Water 88.10 ----- 100.00 ----- Having regard to the Sale of Milk Regulations, 1901, it is adulterated with 1.29% of added water. Solids not Fat ... 8.36 Fat 3.04 Water 88.60 ----- 100.00 ----- Having regard to the Sale of Milk Regulations, 1901, the sample is adulterated with 1.65% of added water. Solids not Fat ... 8.62 Fat 3.22 Water 88.16 ----- 100.00 ----- Solids not Fat ... 8.11 Fat 2.59 Water 89.30 ----- 100.00 ----- Having regard to the Sale of Milk Regulations, 1901, the sample is adulterated with 4.59% of added water. It is also deficient in Milk Fat to the extent of 13.67%. Solids not Fat ... 7.98 Fat 3.91 Water 88.11 ----- 100.00 ----- Having regard to the Sale of Milk Regulations, 1901, the sample is adulterated with 6.12% of added water.	It is therefore a sample of genuine milk. No change had taken place in the constitution of the sample that would interfere with the analysis. No change had taken place in the constitution of the sample that would interfere with the analysis. It is therefore a sample of genuine milk. No change had taken place in the constitution of the sample that would interfere with the analysis. No change had taken place in the constitution of the sample that would interfere with the analysis.	None. Fined £1, including costs. None.

THIRD QUARTER—Continued.

Nature of Article.	No. of Samples taken.	Genuine.	Adulterated.	Result of Analysis specified in Analyst's Certificates.		Observations.	Result of Proceedings taken before the Justices.
				Adulterated.			
				Solids not Fat	... 8.69	It is therefore a sample of genuine milk.	
				Fat ...	... 3.87		
				Water ...	... 87.44		
					100.00		
				Solids not Fat	... 8.16	No change had taken place in the constitution of the sample that would interfere with the analysis.	
				Fat ...	... 4.94		
				Water ...	... 86.90		
					100.00		
				Having regard to the Sale of Milk Regulations, 1901, it is adulterated with 4% of added water.			
				Solids not Fat	... 8.06	No change had taken place in the constitution of the sample that would interfere with the analysis.	
				Fat ...	... 4.94		
				Water ...	... 87.00		
					100.00		
				Having regard to the Sale of Milk Regulations, 1901, the sample is adulterated to the extent of 5.17% of added water.			
Milk ...	11	7	4	Solids not Fat	... 8.67	It is therefore a sample of genuine new milk.	
				Fat ...	... 3.37		
				Water ...	... 87.96		
					100.00		
				Solids not Fat	... 8.56	It is therefore a sample of genuine new milk.	
				Fat ...	... 4.62		
				Water ...	... 86.82		
					100.00		
				Solids not Fat	... 8.36	No change had taken place in the constitution of the sample that would interfere with the analysis.	
				Fat ...	... 4.02		
				Water ...	... 87.62		
					100.000		
				Having regard to the Sale of Milk Regulations, 1901, the sample is adulterated with 1.65% of added water.			

THIRD QUARTER—*Continued.*

Nature of Article.	No. of Samples taken.	Genuine.	Adulterated.	Result of Analysis specified in Analyst's Certificates.	Observations.	Result of Proceedings taken before the Justices.
				Adulterated.		
				Solids not Fat ... 8.25 Fat 2.73 Water 89.02 <hr/> 100.00 <hr/> <p>Having regard to the Sale of Milk Regulations, 1901, the sample is adulterated with 2.94% of added water. It is also deficient in Milk Fat to the extent of 9%.</p>	No change had taken place in the constitution of the sample that would interfere with the analysis.	Dismissed on payment of costs, 11s. 6d., and cautioned by the Magistrates.
				Solids not Fat ... 9.05 Fat 3.34 Water 87.52 <hr/> 100.00 <hr/>	It is therefore a sample of genuine milk.	None.
				Solids not Fat ... 8.51 Fat 3.10 Water 88.39 <hr/> 100.00 <hr/>	It is therefore a sample of genuine milk.	None.
				Solids not Fat ... 8.04 Fat 3.34 Water 88.62 <hr/> 100.00 <hr/> <p>Having regard to the Sale of Milk Regulations, 1901, the sample is adulterated with 5.41% of added water.</p>	No change had taken place in the constitution of the sample that would interfere with the analysis.	None.
				Solids not Fat .. 8.35 Fat 1.69 Water 89.96 <hr/>	No change had taken place in the constitution of the sample that would interfere with the analysis.	Fined 3s. 6d. and 16s. 6d. costs.
				<p>Having regard to the Sale of Milk Regulations, 1901, the sample is adulterated with 1.76% of added water. It is also deficient in Milk Fat to the extent of 43.6%.</p>		
				Solids not Fat ... 8.63 Fat 3.47 Water 87.90 <hr/> 100.00 <hr/>	It is therefore a sample of genuine new milk.	
				Solids not Fat ... 8.53 Fat 3.49 Waaer 87.98 <hr/> 100.00 <hr/>	It is therefore a sample of genuine new milk.	

THIRD QUARTER—Continued.

Nature of Article.	No. of Samples taken.	Genuine.	Adulterated.	Result of Analysis specified in Analyst's Certificates.		Observations.	Result of Proceedings taken before the Justices.
				Adulterated.			
Milk	10	5	5	Solids not Fat ... 8.67 Fat 3.41 Water 87.92 <hr/> 100.00		It is therefore a sample of genuine new milk.	
				Solids not Fat ... 8.26 Fat 4.44 Water 87.30 <hr/> 100.00			
				Having regard to the Sale of Milk Regulations, 1901, the sample is adulterated with 2.22% of added water.			
				Solids not Fat ... 8.53 Fat 2.77 Water 88.70 <hr/> 100.00			
				Having regard to the Sale of Milk Regulations, 1901, there is a deficiency of Milk Fat to the extent of 7.67%.			
				Solids not Fat ... 8.87 Fat 2.53 Water 88.60 <hr/> 100.00			
				Having regard to the Sale of Milk Regulations, 1901, there is a deficiency of Milk Fat to the extent of 15.67%.			
				Solids not Fat ... 8.74 Fat 3.18 Water 88.08 <hr/> 100.00			
				Solids not Fat ... 8.44 Fat 3.52 Water 88.04 <hr/> 100.00			
				Having regard to the Sale of Milk Regulations, 1901, the sample is adulterated with 0.7% of added water.			
				Solids not Fat .. 8.56 Fat 3.14 Water 88.30 <hr/> 100.00			

N.B.—One sample of Milk was broken in transit.

THIRD QUARTER—Continued.

Nature of Article.	No. of Samples taken.	Genuine.	Adulterated.	Result of Analysis specified in Analyst's Certificates.	Observations.	Result of Proceedings taken before the Justices.
				Adulterated.		
Spirits	5	3	2	<p>Solids not Fat .. 7.83 Fat 3.17 Water 89.00 ————— 100.00</p> <p>Having regard to the Sale of Milk Regulations, 1901, the sample is adulterated with 7.88% of added water.</p> <p>Solids not Fat .. 8.97 Fat 3.83 Water 87.20 ————— 100.00</p> <p>Solids not Fat .. 8.61 Fat 4.49 Water 86.90 ————— 100.00</p> <p>Solids not Fat .. 8.63 Fat 3.43 Water 87.94 ————— 100.00</p> <p>WHISKY. The sample is 16.8% U.P.</p> <p>WHISKY. The sample is 20.9% U.P.</p> <p>WHISKY. The sample is 17.8% U.P.</p> <p>GIN. Alcohol, 29.14% Fusel Oil, absent Water, Oil of Juniper, etc., 80.86%</p> <p>Having regard to the Sale of Food and Drugs Amendment Act, 1879, the sample is deficient in alcohol to the extent of 5.29% of the minimum amount of alcohol allowed.</p> <p>RUM. Alcohol, 29.6% Amyl alcohol, absent Water, Ethyl, butyrate, etc., 70.4%</p> <p>Having regard to the Sale of Food and Drugs Amendment Act, 1879, the sample is deficient in alcohol to the extent of 17.79% of the minimum amount of alcohol allowed.</p>	<p>No change had taken place in the constitution of the sample that would interfere with the analysis.</p> <p>It is therefore a sample of genuine new milk.</p> <p>It is therefore a sample of genuine new milk.</p> <p>It is therefore a sample of genuine new milk.</p> <p>There is present 61.69 % of Proof Spirit (limit 65 %)</p> <p>The Town Clerk rules that the Certificate is bad.</p> <p>There is present 63.03 % of Proof Spirit (limit 65 %)</p> <p>The Town Clerk rules that the Certificate is bad.</p>	<p>None.</p>

THIRD QUARTER—*Continued.*

Nature of Article.	No. of Samples taken.	Genuine.	Adulterated.	Result of Analysis specified in Analyst's Certificates.	Observations.	Result of Proceedings taken before the Justices.
				Adulterated.		
Vinegar ...	2	2	0	<p>Acetic Acid, 5.22% Extract, 2.44% Nitrogen, .07% Ash, .47% Sulphuric Acid, 13.1%</p> <p>-----</p> <p>Acetic Acid, 4.074 Extract, 2.03% Nitrogen, .06% Ash, 20%</p> <p>-----</p>	It is therefore a sample of genuine vinegar.	
Potted Shrimps...	2	0	2	<p>(Genuine Potted Shrimps) Butter Boric Acid about 3.7%</p> <p>-----</p>	<p>The melted butter was probably poured over the surface of the potted shrimps in the usual way. Boric Acid or borax has been added as a preservative, but this constitutes adulteration.</p> <p>The Town Clerk rules that the certificate is bad.</p>	
	9	7	4	<p>(Genuine Potted Shrimps) Butter Boric Acid about 4.2%</p> <p>-----</p>	<p>The melted butter was probably poured over the surface of the potted shrimps. Boric Acid or borax has been added as a preservative, but this constitutes adulteration.</p> <p>The Town Clerk rules that the certificate is bad.</p>	

THIRD QUARTER—*Continued.*

Nature of Article.	No. of Samples taken.	Genuine.	Adulterated.	Result of Analysis specified in Analyst's Certificates.			Observations.	Result of Proceedings taken before the Justices.
				Adulterated.				
Cheese	3	3	0	Genuine			It is therefore a sample of genuine butter.	
Butter	3	3	0	Water	12.52			
				Curd	3.12			
				Salt	2.08			
				Fat	82.28			
					100.00			
				Water	14.32			
				Curd	2.72			
				Salt .. ..	.88		
				Fat	82.08			
					100.00			
				Water	13.06			
				Curd	2.60			
				Salt	1.60			
				Fat	82.74			
					100.00			
Jam	3	3	0	Genuine			It is therefore a sample of genuine butter.	
Total	54	33	23					

FOURTH QUARTER.

Nature of Article.	No. of Samples taken.	Genuine.	Adulterated.	Result of Analysis specified in Analyst's Certificates.				Observations.	Result of Proceedings taken before the Justices.
				Adulterated.					
Milk	10	10	0	Solids not Fat	..	8.68		It is therefore a sample of genuine milk.	None.
				Fat	3.52			
				Water	87.80			
						100.00			
				Solids not Fat	..	9.19		It is therefore a sample of genuine milk.	None.
				Fat	4.01			
				Water	86.80			
						100.00			
				Solids not Fat	..	8.99		It is therefore a sample of genuine milk.	None.
				Fat	3.21			
				Water	87.80			
						100.00			
Solids not Fat	..	8.52		It is therefore a sample of genuine milk.	None.				
Fat .. ..	..	3.70						
Water .. ..	..	87.78						
		100.00							
Solids not Fat	..	8.59		It is therefore a sample of genuine milk.	None.				
Fat .. ..	..	4.61						
Water .. ..	..	86.80						
		100.00							
Solids not Fat	..	8.63		It is therefore a sample of genuine milk.	None.				
Fat .. ..	..	4.37						
Water .. ..	..	87.00						
		100.00							
Solids not Fat	..	8.81		It is therefore a sample of genuine milk.	None.				
Fat .. ..	..	3.19						
Water .. ..	..	88.00						
		100.00							
Solids not Fat	..	8.85		It is therefore a sample of genuine milk.	None.				
Fat .. ..	..	3.59						
Water .. ..	..	87.56						
		100.00							
Solids not Fat	..	9.05		It is therefore a sample of genuine milk.	None.				
Fat .. ..	..	3.59						
Water .. ..	..	87.36						
		100.00							
Solids not Fat	..	8.66		It is therefore a sample of genuine milk.	None.				
Fat .. ..	..	3.44						
Water .. ..	..	87.90						
		100.00							

FOURTH QUARTER—Continued.

Nature of Article.	No. of Samples taken.	Genuine.	Adulterated.	Result of Analysis specified in Analyst's Certificates.			Observations.	Result of Proceedings taken before the Justices.						
				Adulterated.										
Butter .. .	3	3	0	Water	14.94		It is therefore a sample of genuine butter.	None.						
				Curd	3.98									
				Salt .. ..	.62								
				Fat	80.46									
				<hr/>										
				100.00										
				<hr/>										
				Water	12.40				It is therefore a sample of genuine butter.	None.				
				Curd	3.72									
Salt .. ..	.98												
Fat	83.26													
<hr/>														
100.00														
<hr/>														
Water	12.46		It is therefore a sample of genuine butter.	None.										
Curd	2.72													
Salt	1.28													
Fat	83.60													
<hr/>														
100.00														
<hr/>														
Coffee .. .	3	3			0	Moisture	3.41		It is therefore a sample of genuine coffee.	None.				
						Ash	5.09							
			Specific gravity of 10% decoction	1.0093										
			Starch absent											
			<hr/>											
			Moisture	4.44			It is therefore a sample of genuine coffee.	None.						
			Ash	4.07										
			Specific gravity of 10% decoction	1.0074										
			Chickory absent											
			Starch absent											
			<hr/>											
			Moisture	4.61							It is therefore a sample of genuine coffee.	None.		
			Ash	4.12										
			Specific gravity of 10% decoction	1.0067										
			Chickory absent											
Starch absent														
<hr/>														
WHISKY.			I am of opinion that the same is a sample of genuine whisky.	None.										
The sample is 18.75%, under proof containing 39.1% of alcohol by weight.														
<hr/>														
RUM.					I am of opinion that the same is a sample of genuine rum.	None.								
The sample is 15.89%, under proof, containing 40.6% of alcohol by weight.														
<hr/>														
GIN.							I am of opinion that the same is a sample of genuine gin.	None.						
The sample is 33.2%, under proof, containing 31.69% of alcohol by weight.														
<hr/>														
Cheese	1	1							0	Water	31.1		It is therefore a sample of genuine cheese.	None.
										Ash	4.2			
										Fat	32.9			
										Casin.. ..	29.5			
Pepper .. .	2	2							0	I am of opinion that the same is a sample of genuine pepper.				
Lard	2	2							0	Iodine absorption, 63.0% M.P., 37° c Saponification value, 19.7			I am of opinion that the same is a sample of genuine lard.	None.
			<hr/>											
			Iodine absorption, 61.5% M.P., 38° c Saponification value, 19.7								I am of opinion that the same is a sample of genuine lard.	None.		
			<hr/>											
Total .. .	24	24	0											

FOOD AND DRUGS' ACTS, 1875—1899.

SUMMARY OF ARTICLES PROCURED FOR ANALYSIS, AND HOW DISPOSED OF DURING THE YEAR 1909.

Nature of Article.	No. of Samples taken.	Genuine.	Adulter- ated.	Convic- tions.	Dismissed on payment of costs or Summons Withdrawn.	No. of proceed- ings taken.	Penalties Imposed.
New Milk	53	32	21	5	3	8	£ 7 s. d. 7 6 6
Butter	12	12	..	..	..	..	..
Cheese	4	4	..	..	..	..	..
Lard	2	2	..	..	..	..	..
Coffee	3	3	..	..	..	..	..
White Pepper	2	2	..	..	..	..	..
Jam	3	3	..	..	..	..	..
Potted Shrimps	2	..	2	..	..	..	..
Vinegar	2	2	..	..	..	..	..
Spirits	8	6	2	..	..	..	..
Total..	91	66	25	5	3	8	£7 6s. 6d.

N.B. — One sample was broken in transit to the Public Analyst at Leeds.

